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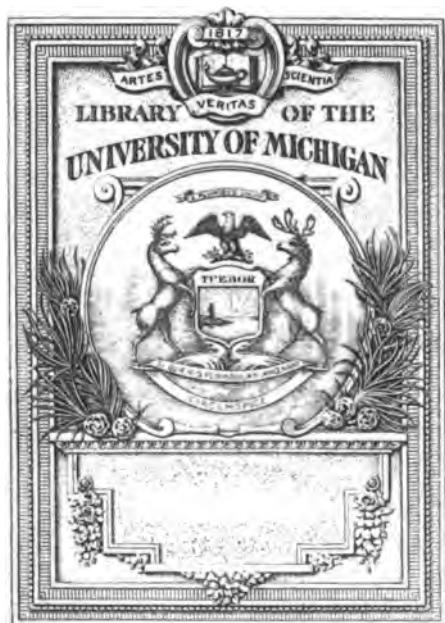
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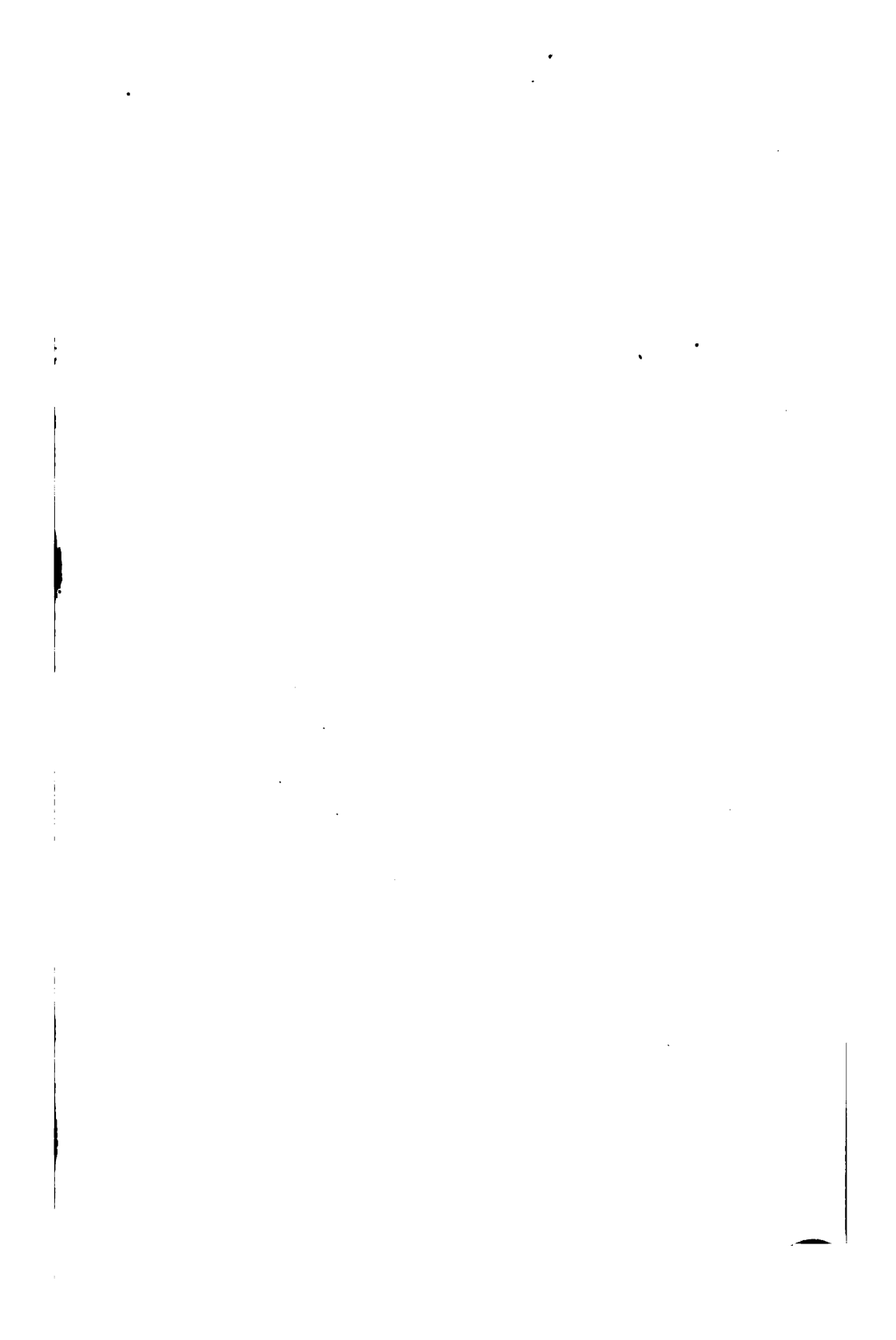
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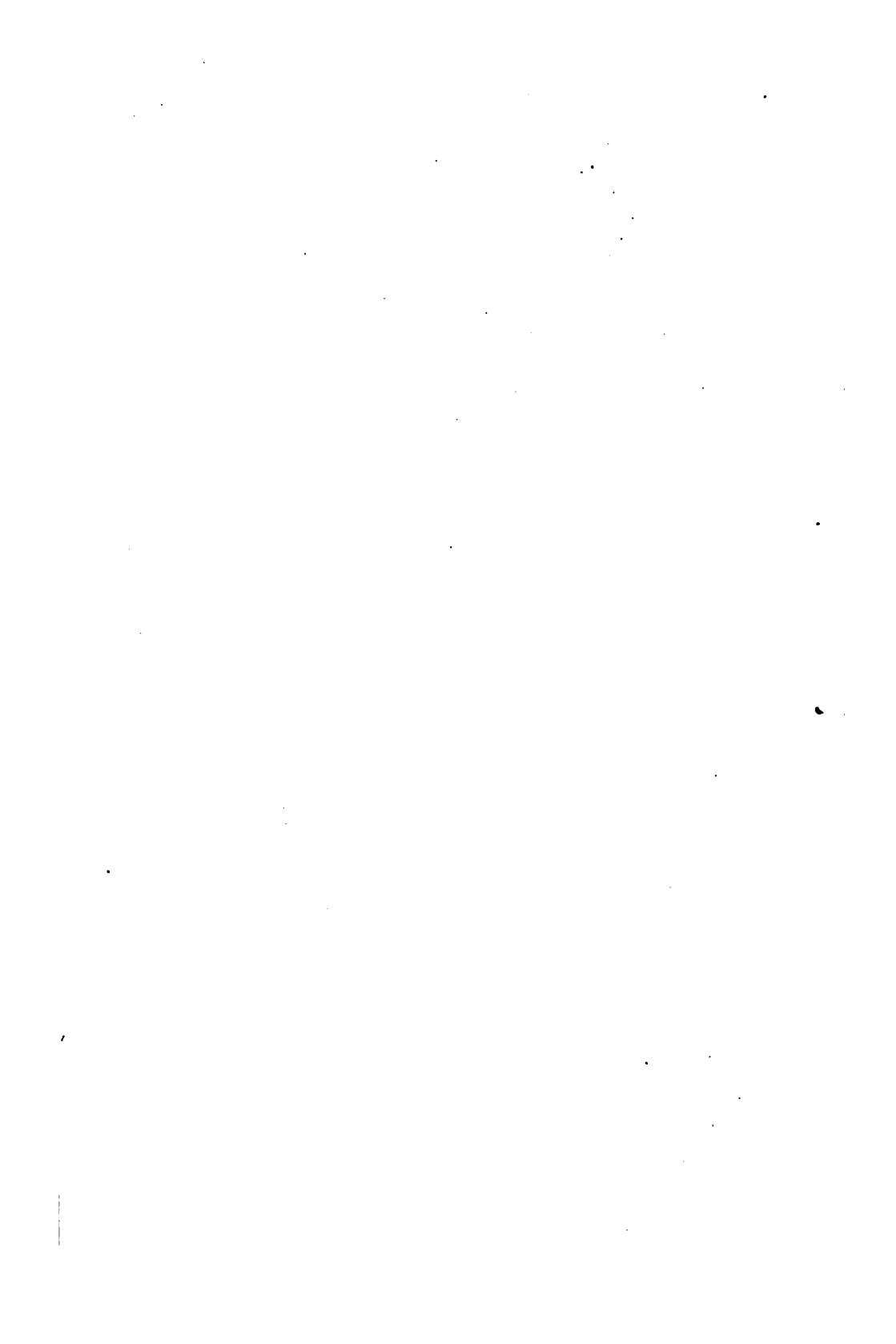


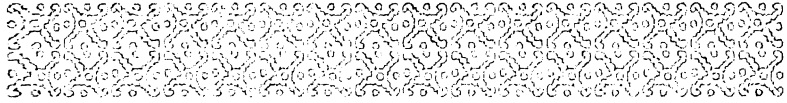
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Proceedings
Michigan State
Pharmaceutical Association
1895.....





Proceedings
Michigan State
Pharmaceutical Association
1895.....



"CANADIAN CLUB"

Whiskey

Distilled and Bottled by

Hiram Walker & Sons, Limited
Walkerville, Canada.

Medal and Diploma, World's Columbian Exposition, Chicago, 1893.

For "fine aroma, very pleasant taste, and principal requirements of a high class whiskey showing thorough maturity." The maximum number of points were given on analysis, demonstrating absolute purity.

Gold Medal, California Midwinter International Exposition, San Francisco, 1894.

Diploma of Honor, Antwerp Exposition, 1894.

At this Exposition the Diploma of Honor was an exceptionally high award, ranking above the Gold Medal.

Diploma of Honor, Vienna Exhibition, 1894.

Gold Medal, Dresden Exhibition, 1894.

"The British Medical Journal," London, June 17th, 1893, says:—"It is satisfactory to find, as we do from our examination of the samples sent to us, that it is a genuine and well-manufactured spirit; the extract is very low, and it is free from sugar. Other analytical results which we have obtained afford further evidence of the genuine character of the whiskey."

"The Hospital Gazette," London, Oct. 1st, 1892, says:—"It may be confidently expected that the "Canadian Club" Whiskey will find great favor with the medical profession in this country. It is undoubtedly peculiarly adapted for medicinal use. It is perfectly free from coloring or flavoring matter, the natural flavor and bouquet being most delicate; it may therefore be strongly recommended for persons of weak stomach."

"The Lancet," London, August 20th, 1892, says:—"It is particularly soft to the palate, having been allowed to mature, according to excise guarantee for a period of five years. It blends well with aerated waters. The sample was quite free from all raw and injurious products."

PROCEEDINGS

OF THE

Thirteenth Annual Meeting

OF THE

MICHIGAN STATE

Pharmaceutical Association

HELD AT

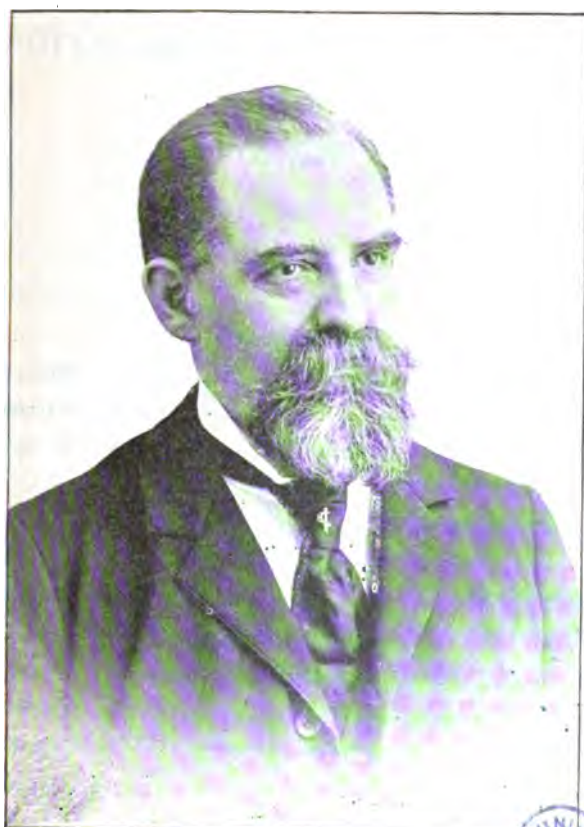
Detroit, July 16, 17, 18 and 19, 1895.



GRAND RAPIDS, MICH.
BENJ. SCHROUDER, SEC'Y,
1895.



Tradesman Company,
Printers.
GRAND RAPIDS.



DR. GEORGE J. WARD,
PRESIDENT M. S. P. A.
1895-96.



OFFICERS OF THE ASSOCIATION.

1895-96.

PRESIDENT.

DR. GEO. J. WARD.....ST. CLAIR.

VICE-PRESIDENTS.

E F. PHILLIPS.....ARMADA.

S. P. WHITMARSH.....PALMYRA.

A. L. WALKER.....DETROIT.

SECRETARY.

BENJ. SCHROUDER.....GRAND RAPIDS.

TREASURER.

WM. DUPONT.....DETROIT.

EXECUTIVE COMMITTEE.

FRANK J. WURZBURG, CHAIRMAN.....GRAND RAPIDS.

F. D. STEVENS.....DETROIT.

E. T. WEBB.....JACKSON.

H. G. COLMAN.....KALAMAZOO.

D. M. RUSSELL.....GRAND RAPIDS.

General-let
5-3-33

STANDING COMMITTEES.

1895-96.

TRADE INTERESTS.

For Three Years.

F. J. TODD DETROIT.

S. E. PARKILL.....OWOSSO.

For Two Years.

D. E. PRALL.....SAGINAW, E. S.

FRED R. PRICE.....SAULT STE. MARIE.

For One Year.

C. N. ANDERSON DETROIT.

J. K. CLARK.....BLISSFIELD.

O. EBERBACH.....ANN ARBOR.

PHARMACY AND QUERIES.

PROF. A. B. STEVENS.....ANN ARBOR.

C. C. SHERRARD.....DETROIT.

LEGISLATION.

A. S. PARKER.....DETROIT.

A. C. SCHUMACHER.....ANN ARBOR.

GEO. GUNDRUM.....IONIA.

ADULTERATIONS.

FRANK A. THOMPSON.....DETROIT.

PROF. A. B. PRESCOTT.....ANN ARBOR.

ORIN A. FANCKBONER.....GRAND RAPIDS.

DELEGATES.

TO THE AMERICAN PHARMACEUTICAL ASSOCIATION.

DR. ALBERT B. PRESCOTT.....ANN ARBOR
C. C. SHERRARD.....DETROIT
GEO. McDONALD.....KALAMAZOO

TO THE NATIONAL WHOLESALE DRUGGISTS' ASSOCIATION.

C. N. ANDERSON DETROIT
A. S. PARKER DETROIT.

Michigan

State Board of Pharmacy.

GEO. GUNDRUM, IONIA.....Term expires Dec. 31, 1895
C. A. BUGBEE, CHARLEVOIX.....Term expires Dec. 31, 1896
S. E. PARKILL, OWOSSO.....Term expires Dec. 31, 1897
F. W. R. PERRY, DETROIT.....Term expires Dec. 31, 1898
A. C. SCHUMACHER, ANN ARBOR.....Term expires Dec. 31, 1899

OFFICERS OF THE BOARD.

President, C. A. BUGBEE.....CHARLEVOIX
Secretary, F. W. R. PERRY.....DETROIT
Treasurer, GEO. GUNDRUM.....IONIA

EXAMINATION SESSIONS OF THE BOARD.

Lansing, November 5, 1895
Grand Rapids, March 3, 1896
Detroit (Star Island), June —, 1896
Lansing, November 3, 1895

PROCEEDINGS
OF THE
Michigan State Pharmaceutical Assoc'n

HELD AT
Detroit, July 16, 17, 18 and 19, 1895.

FIRST SESSION.

The first session of the Michigan State Pharmaceutical Association was called to order by President Parker at 10:30 a. m., Wednesday, July 17, who said:

I am sure we are all pleased at the favorable prospects for a very successful meeting. The matter is entirely within your own hands. To make the meeting a success, it simply devolves upon you to attend the sessions and take part in the discussions; and, when we have done that, we will have attained the object we desire. It has been customary to open these meetings with prayer, but that feature has been overlooked; therefore, we will pass on to the next order. We had hoped to have His Honor, Mayor Pingree, with us to-day, to extend to you the freedom of the city; but I am sure none of you will be disappointed when I inform you that we have with us a gentleman who enjoys the distinction of being very close to His Honor, and is, therefore, eminently qualified to represent him—a gentleman who is thoroughly a Michigan man, and a gentleman who is very much in evidence to-day as a representative Michigan man, having recently been highly honored by election to a seat in Congress. It gives me great pleasure, ladies and gentlemen, to present to you Hon. John B. Corliss, of Detroit, Congressman-elect (applause).

Mr. Corliss then addressed the convention as follows:

I am always delighted to welcome associations of business men to the city of Detroit. I am also proud to be able to respond, in my feeble way, for our worthy Mayor. Detroit is noted for many things, and at the present time I think she is more particularly known through the noble deeds of her sturdy, honest, fearless and energetic Mayor, Hazen S. Pingree (applause). Mayor Pingree, notwithstanding he has some faults—and, like all human beings, is subject to error—has done more to advance the power and influence of an honest administration

of municipal governments in this nation than any other man (applause). I am pleased to be able, in his behalf, to extend a hearty greeting to the members of this Association.

You are, no doubt, all familiar with our beautiful city. While we are not as large and do not perform such wonderful feats in business affairs as other cities, we excel in many things all cities upon this continent. We have a river without an equal for its beauty and commercial traffic in the world; a park which surpasses anything on this continent, with many of the largest manufacturing institutions of the country; the largest manufactories of drugs, producing more of this class of merchandise than any city in the United States, if not in the world. Detroit is naturally very advantageously located for manufacturing institutions, and her success and prosperity are substantially dependent upon such industries. Her people, although not as aggressive as those of other cities, are more happily located and peacefully inclined.

Detroit is justly entitled to the name given by its founder, "The Beautiful City of the Straits—The City of Homes." In nearly all large manufacturing centers you will find employes and mechanics living in tenement houses, occupying uncomfortable and unhealthy quarters, but, fortunately, in this city we have few such places. The great majority of our mechanics and artisans own their own little cottages or are enabled, through the prosperity of the city, to occupy such comfortable little homes, that add so much to the glory, blessings and comfort of the people. Her citizens are especially happy, which may arise from a little incident which I would like to relate which occurred in the early history of the city of Detroit. It was located and named by the founder of Quebec—the names of each city, literally translated, meaning "City of the Straits." In its early history, before we had municipal laws and established offices of progressive Pingreeites, the people used to adopt meager methods for the enforcement of their laws. It is said that in a little place near the river, called a by-way, there was established what was known in those days as a common crier, where wares were sold, taxes collected and assessed, and claims collected. This common crier became one of the most conspicuous officers of those early days. To illustrate how happy the people were thus early in the history of this city, one day the sheriff, desiring to sell something, went to the office of the common crier and, to his astonishment, found this notice on the door: "There will be no more crying for two weeks. My wife is dead." If a man could be happy under such circumstances, it is not at all surprising that the people of Detroit have remained a happy community ever since.

I wish to assure you that, so far as the police department is concerned, you have the freedom of the city. Should you fall into the charge of our genial Captain Nicholson, of the House of Correction, which I trust you may visit, I can assure you the latch-string will be out and your exit assured.

There is one place in our immediate vicinity which it would be well to shun on account of the extent of one of its manufactories, and that is Walkerville.

We are justly proud of our manufacturing interests and especially proud of our business men engaged therein. It is a deserving pride to us that you have selected the city of Detroit as the place for your meeting. I sincerely trust you may be made happy during your stay and that you may gain benefit and profit through the deliberations of your Association. In my judgment there is nothing which advances the business interests and broadens the business capacity of men like

the coming together, exchange of thought and the discussion of affairs pertaining to such mutual associations.

I am very glad of the privilege of extending to the members of your Association the courtesies and privileges of the city of Detroit and the freedom thereof, and trust your visit here may be both pleasurable and profitable.

President: You have heard the eloquent words of welcome that have just been spoken. It gives me great pleasure to call upon Prof. Prescott, of the University, to make a reply.

Prof. Prescott thereupon responded to the address of welcome, as follows:

It gives me great pleasure to say a few words, by request of the Association, in response to this very cordial and happy and eloquent welcome, given us by this representative of the city of Detroit—this fitting representative of the city and of the State. I am, in some sense, very proud that I may speak for this Association. I have known the Association ever since it was born and have been present at all of its annual gatherings, I believe, except one, that of last year, when I had the misfortune to be absent. And this Association is growing so rapidly, sir, that I feel myself almost out of step from the lack of one year's annual attendance.

In the first place, this is an Association of Michigan men, citizens of Michigan—Michigan men and Michigan women. We are citizens of Michigan, loyal and law-abiding. As men, the members have not forgotten that they have been boys and their love of play still remains, as shown by the games which opened this gathering yesterday—a very fitting opening for this season of vacation, and for men closely engaged in an exacting occupation. When the druggists do get off for rest, which is not very often, they certainly cannot do better than to engage in athletic recreations.

The body of the pharmacists of Michigan represent, as pharmacists everywhere should represent, certain great interests of the community. This Association represents certain business interests, touching and moving with all the business interests of Michigan, the interests of commerce and the interests of productive manufacture. This Association conjoins with these business interests certain other concerns, the interests of industrial and applied science, factors which are in this day very important indeed in all the arts of mankind. Formerly it appeared that all which was wanted for the existence of man on this earth was to get food to eat, and then to gather fibers to weave into clothing to wear; but it has come to pass that man can use a great deal that comes out of the earth. He has come to use the materials of the earth's crust in a great many forms. The materials and forces of this planet have come to be plastic in the hands of man; and, because life is always a combat against disease, it has come about that materials for preventing disease have been drawn from every part of the world. These materials are in demand by the great profession of medicine and in use in every home in the community; but the supply and adaptation of the remedies and preventatives of disease belong now to a distinct profession and pursuit—that of pharmacy. Along with these articles of defense against disease demanded by the physician there are found an even greater number of articles wanted in the industrial arts, materials adapted by industrial chemistry and by industrial botany from the resources of the mineral and vegetable kingdoms, and more and more brought into the dispensing hand of the pharmacist. Under the extent of these varied demands, pharmacy itself has

come to be divided into two great branches—that of manufacturing and that of dispensing to the public. So it is that pharmacy everywhere represents, and this Association represents, as we believe, not only the interests of commerce and of manufactures, but the interests of scientific research and systematic study. All these combine in the literature of pharmacy, and characterize its methods of progress.

For your very hearty invitation to Detroit, extended to this meeting, we give you our most appreciative thanks. Having the benefit of acquaintance with the members of this Association, I may say that they always behave themselves well, even under the incitements of a town as attractive as Detroit. I could hardly say more to show my utmost confidence in the good conduct of the officers and members of this society. At all events, with the precautionary suggestions which you, Sir, from your experience in Detroit—I mean from your observation of the visitors of this city—have forewarned us of in your mention of the river banks, etc., our good behavior is perfectly well assured. I hope, also, that while the Association is here, its members may do something to emulate that generous spirit of hospitality in which Detroit always so royally entertains its guests. It is an attractive center to all who gather here; it is a favorite place of meeting for the jolly good fellows, as well as for the earnest workers. To you, then, as the speaker for all the generous people of Detroit, and especially for our hosts, the druggists and drug houses, whose hospitality we know so well, we give the sincere thanks of the entire membership of this body for the invitation to convene here and the welcome extended us on our arrival (applause).

President: We have with us to-day a gentleman who is not unknown to the people of Michigan—a gentleman whose interest in the science of pharmacy is very keen—who at one time, I believe, was a pharmacist—at all events, a manufacturing pharmacist—and a gentleman who, I think, has been elected an honorary member of this Association. I am sure you will all be pleased to listen to a few remarks from Dr. Samuel P. Duffield, Health Officer of the City of Detroit.

Dr. Duffield thereupon spoke as follows:

I was not prepared by either a dose of hypophosphite of strychnine or kola for a speech this morning. I came in simply to listen to the welcome which was to be delivered to you as the Knights of the Pestle. In 1858, on the corner of State street and Woodward avenue, after having graduated as a chemist, I began pounding away with a mortar to earn my daily bread. From that I developed into what was called a manufacturing chemist, which came very near manufacturing me out of the world (laughter). When I look back upon the system that was then governing the druggists—for they could not be called pharmacists in the strict sense of the word—and see the high plane to which you have arisen through the instrumentality of our friend—Prof. Prescott—who has elevated you from an ordinary druggist, a mere seller of drugs, without knowledge of what they are, botanically, chemically or otherwise, to a pharmaceutical chemist, who has the ability not only to sell the drugs but to analyze them and place them in their proper catalogue, it is indeed very gratifying. To think that we are not liable to swallow arsenic for epsom salts or anything of that kind, when we go into an apothecary's to-day and do not need the coroner to sit on us the next morning! It is a very consoling reflection, not only to the doctor but to the patient.

In Europe, it is established that every druggist shall be a chemist.

He shall be able to step into court and be able to make postmortem analyses of stomachs or poisons—what we call high analytical chemistry in this country. It is absolutely necessary in Germany, and also in Russia, that the pharmaceutical chemist shall be thoroughly educated in toxicology. He is called upon to make analysis; he passes before the court and gives his opinion as a chemical expert. I think I can see this day dawning for this country. Without casting any reflections on the county physician, or any one else, I think the day is coming when the chemist will be required in the police department, and he shall be a paid chemist who shall do nothing but examine everything which comes in to him and make a thorough analysis. Just think, gentlemen, of paying \$30 for an analysis of an alkaloid of poison. Do you suppose that that chemist goes through the range of alkaloidal poisons? Do you suppose that analysis is anywhere near correct? Suppose you have to separate some of our very delicate alkaloids like conia and codeia, or some similar ones. Can any man do it and carry out a full system of analysis, and live on \$30? The day is coming when the pharmaceutical chemists of this State should enter a protest against any such system of analysis. You are just as much interested in the thorough, scientific examination of a case of poisoning as any one, and the day should not be far distant when the whole chemical fraternity will demand that a thorough examination should be made of every case of suspected poisoning. There was a young man died in this city who was a chemist and a member of this Association. I do not want to make any reflections, one way or the other, but I want you to look back over that history and see what it was considered that he died of. You know whom I refer to. He was a manufacturing chemist here in the city, in the employ of a manufacturing chemist. He died in a hospital here in the city, and to this day I think some people are rubbing their foreheads and wondering what he died of.

I welcome you, gentlemen, to this city. I welcomed you as a pharmacist, long ago. I welcome you as a physician at present, and I say that, as you build up this harmony between the physicians and yourselves, and keep eliminating, and making these synthetic products from the carbolic acid series; as you keep handing to us physicians the matters that are better adapted for the treatment of disease, we can do nothing more than still add our praise to your efforts, and thank you for the additions you have made (applause).

President: Will the Vice-President, Mr. John E. Peck, take the chair?

Chairman: Gentlemen, the next in order will be the President's address. We will now listen to him.

President: About a dozen years ago, the question of organizing the pharmacists of Michigan was taken up. There are some of you here to-day who attended that meeting at Lansing, and the rest of you, of course, are perfectly familiar with the fact that an organization was effected—a very strong one—which ultimately resulted in the Pharmacy law. There was for a number of years considerable enthusiasm shown in our meetings, but it has seemed to me that for some time past we have not had quite the enthusiasm and interest in our meetings that we should, and that in certain lines we have drifted away. Therefore, I deem it prudent at this time, to take up again the question of organi-

zation in connection with that of trade interests, which has been prominently mentioned in connection with this meeting.

PRESIDENT'S ADDRESS.

Another year has passed and we are reminded that our duty calls us together, as members of an honored craft, to review the past, and, with ears to the ground, note the signs of the future. During the year past the pulse of trade has been weak and slow and devoid of special feature, so far as concerns the pharmacist, and there are, no doubt, those who feel that, by virtue of existing conditions, there is no remedy that can restore the old-time strength and vigor; but, in common with other branches of trade, we hail the signs of an approaching era of prosperity and we should be encouraged to greater efforts. I, therefore, sincerely hope that this meeting may be characterized by a determination to unite, as fellow pharmacists and business men, with one aim—that of mutual prosperity.

Our Association is now in the thirteenth year of its existence, and we can review its record with feelings of pardonable pride. It has not accomplished all that it should. It cannot live on its past efforts; the demands of to-day are obsolete to-morrow; therefore, it must push onward. After having chosen a vocation and entered upon it, it is one's duty to put forth his best effort towards its betterment.

One cannot afford to live a professional or business life entirely within himself; he must let his light shine and profit by that of his fellows or become lost in the distance, as the world moves on.

We must realize that benefits are only attainable through the medium of our own efforts and proportionately thereto; therefore, let us act wisely and not lose sight of our opportunities. We can ill afford to say: "I have no interest in my neighbor." In the mad rush of business so characteristic of to-day, we are brought face to face with conditions which demand unity and strength of purpose. Never before in the history of our country has the saying, "In unity there is strength," received greater emphasis, and there is no craft in greater need of organization than that of the pharmacist. I insist, then, that we need to strengthen our ranks.

We are proud of our advancement in education and science, but the commercial feature of our vocation stands out prominently as a breadwinner; that we must recognize; its interests we must foster, for the fact remains, that prosperity is largely conducive to happiness.

The spirit of organization is in the air and I need not cite example to illustrate what it can do; with that you are all familiar. Unqualified success does not, in every case, follow organization but it can be attained in a degree; if not the full measure, then a part.

You will pardon the egotism if I assert that the pharmacist has attainments above the average. From the nature of his business he becomes a recluse, giving little attention to those forces which are insidiously working each day, drawing the lines closer about him, each day making him less conspicuous as a commercial factor. One of the objects of this Association is "to promote by all legitimate means the business interests of its members." This feature, then, should commend itself to you and you should shake off your lethargy and become an active member. We appreciate your criticisms—no doubt we need them—but why deprive us of your assistance and encouragement?

The old questions of illegitimate competition and price-cutting still confront us. We go to the proprietors and ask for relief, and what do they tell us? Simply this: "Go home, gentlemen, and organize, and

when a majority of your number can come to us, then we will grant what you ask." Does not their reply emphasize the necessity for organization?

I do not take the optimistic view that every evil will be corrected by organization, however strong, nor should our duties consist entirely in correcting trade abuses. Organization would, however, engender a fraternal feeling, with a tendency toward eliminating and preventing many annoyances, especially those of a local character. We should not organize for the sole purpose of dealing with proprietors, but on the broad plane of general welfare.

At this time we may well ask ourselves the question: "Are we doing all that we might?" We certainly are not. Indeed, our apathy and indifference afford occasion for remark and we are classed by some observers as men of small ideas, a criticism that should have no foundation in fact. We notice the changes in trade conditions—changes which to us are disastrous. How, then, shall we meet them? It is the duty of this Association to undertake the solution of this problem. I believe that it is possible for pharmacists to develop their business along other lines and in time become practically independent of proprietors, who so long have had the balance of power. To this end we should lend our strength and energies. A further consideration of this subject I leave to your Committee on Trade Interests.

Now, in the thirteenth year of our existence, what is our position with respect to the pharmacists of the State? We find that in the last decade we have made no progress, that we do not possess the strength which should come from the 1,500 pharmacists of Michigan; but, if we can arouse their interest and show them practical results, then we shall not lack in membership. We notice all around us in our sister states associations strong in numbers and meetings well attended by members full of enthusiasm. Why not in Michigan? Gentlemen, will you take hold?

From an educational standpoint there is little to criticize—the tendency is upward and we note with satisfaction the advancement. Higher standards for admission, together with broadened curriculums of study, as are now demanded by some of our colleges, will have their influence upon those who are to follow us and the standard of pharmacy will be elevated.

Our medical colleges are also extending their courses of study, and I am convinced that the study of the Pharmacopoeia and National Formulary by medical students will result in great benefit to the profession of pharmacy. Familiarize the physicians with these standards in medicine and I predict that their *Materia Medica* will largely be obtained from them, instead of from the price lists of the manufacturing pharmacist. The question urging this matter may be worthy of your consideration.

It is a subject for congratulation that our University has, with its accustomed spirit of progress, recognized the necessity for the higher education of the pharmacist by providing a full four years' course, leading to the degree of Bachelor of Philosophy in Pharmacy.

When so high a standard shall become universal then we may expect pharmacy to hold the position among the learned professions that it should, and I hope it will be divorced from those adjuncts which to-day are a menace. Bacteriology, analysis and sanitation may be expected to open new and profitable fields.

A few ideas have suggested themselves, to which I desire to call your attention:

The membership of this Association should be increased. Can we

not devise a plan whereby every registered pharmacist can be made a member for a nominal fee? I would recommend that a Committee on Membership be appointed.

The question of mutual fire insurance has been successfully solved by the Ohio pharmacists, from whom data may be obtained should it be deemed advisable.

The trade mark evil will, probably, never be eliminated until those who are affected thereby take the initiative. I believe this to be in line with our duties.

The importance of popularizing the National Formulary with physicians does not seem to be appreciated. A strong effort in this direction should be made. The prescribing of proprietary or semi-proprietary articles reacts upon the physician's business; patients soon learn the names of these articles and call for them upon their own responsibility, when required.

I fear that I have imposed upon good nature by taking so much of your time. In conclusion, I have to remind you that the work of the coming year is before us. Let me again urge you to greater activity. Let committees realize that their appointment implies a duty to be performed and members understand that there is work for them, as well.

When such a condition shall prevail, then will the Michigan State Pharmaceutical Association fulfill the purpose for which it was organized.

We should, also, place ourselves on record with respect to the question of free alcohol. The plan suggested by Dr. Squibb should, in my opinion, be endorsed.

The Modified Rebate Plan, now under advisement, should receive your consideration. With all due respect to those proprietors who, seemingly, are doing all in their power to regulate the sale of their products, I still hold that its solution lies entirely with them and at such time as they may elect.

A pure food law, properly enforced, would be of great benefit, by preventing the sale of worthless goods by grocers, department stores and others, in competition with a reliable article. Every conscientious pharmacist should be sufficiently interested to aid in securing such a law.

At our last meeting a resolution was adopted, requesting the Board of Pharmacy to require a qualification in general education equal to that of a grammar school. That request has been complied with and I am pleased to state that the papers presented are of a much better grade. The Pharmacy Board is doing all in its power to elevate the standard and should receive our hearty co-operation.

An effort should be made to secure uniformity of requirements by state boards. I believe that the establishment of a national association of state boards would be of service in securing this result.

Your Committee on Trade Interests is an important one. Would it not be better to increase the number and give them executive powers?

Since our last meeting we have encountered another session of the State Legislature, and I congratulate you on successfully meeting every issue and emerging therefrom with our Pharmacy law intact.

The President's report was greeted with applause.

Chairman: You have heard the President's address, and it seems to me a paper of value and worthy of discussion, and, although there may not be a precedent for discussing the President's address section by section, yet it contains so much matter pertaining to the Trade Committee's report, that it seems extremely practical. I presume,

though, that we will have to follow the precedent set, and simply adopt it in the regular order, although it is entirely too good an address to be submitted with only a passing notice.

Secretary: I believe the rule is to refer it to a committee to report on later at another session.

Chairman: You make that a motion, do you, Mr. Thompson? It is moved that the President's address be referred to a committee for discussion later on.

The motion was supported and adopted.

Chairman: The next order of business is the report of the Secretary. Will the Secretary please read his report?

I am obliged to report that during the past year there has been no business brought before me but what has been settled by correspondence. The amount of dues collected is much below that of last year and not sufficient to meet the necessary expenses; but by the special issue of the 1894 proceedings, which gave us a profit, the Association is able to report a small balance on hand. The following are the receipts and disbursements since our last annual meeting:

RECEIPTS.

Balance on hand Sept. 18, 1894.....	\$ 19 26
Dues collected from Sept. 18 to July 17.....	284 00
Profit from issuing 1894 proceedings.....	111 00
	\$ 414 26

DISBURSEMENTS.

Oct. 4. Voucher 47, Geo. Kaull, stenographer.....	\$ 25 00
Dec 14. Voucher 48, Jefferson Press, printing.....	11 10
Dec. 15. Voucher 49, A. Bassett, delegate to N. W. D. A.....	50 00
July 17. Voucher 50, F. A. Thompson, salary.....	225 00
July 17. Voucher 51, Jefferson Press, printing.....	4 35
July 17. Voucher 52, Secretary's expenses, (itemized bill herewith).....	96 96
July 17. Balance.....	1 85
	\$ 414 26

With deep regret I report the death of an honored and active member, Hon. T. H. Hinchman, of Detroit.

Chairman: I will appoint as the Committee on President's address Messrs. Wurzburg, Vernor and Whitmarsh.

The President then resumed the Chair. Upon the report of the Treasurer being called for, he stated that it would be necessary for himself and the Secretary to first get together, which they did. F. W. R. Perry then read the report of the Committee on Trade Interests:

We have held no meetings during the year, the business having all been done by correspondence, which has been largely pertaining to the holding of the present meeting.

The Committee has audited the accounts against the Association, which are in the hands of the Secretary.

After the President had requested the members to meet promptly at the hour set for the afternoon session, a motion to adjourn until 2 p. m. was carried.

President: The next thing in order is the report of the Treasurer:

RECEIPTS.

1894		
Sept. 18.	To balance on hand.....	\$ 1 80
1895		
July 17.	To cash from Secretary.....	\$412 41 412 41
		\$414 21

DISBURSEMENTS.

1895		
July 17.	By paid warrant No. 47.....	\$ 25 00
July 17.	By paid warrant No. 48	11 10
July 17.	By paid warrant No. 49	50 00
July 17.	By paid warrant No. 50.....	4 35
July 17.	By paid warrant No. 51.....	225 00
July 17.	By paid warrant No. 52.....	96 96
		\$ 412 41
	Balance, cash on hand.....	1 80
		\$ 414 21

Upon motion of Mr. Whitmarsh, the report was duly accepted and approved.

President: We will have to have some of the reports scheduled for to-morrow and then go back and take up what has been omitted. I think the Committee on Pharmacy and Queries is ready to report.

Mr. Russell: This year I have not a very voluminous report. I was instructed to see if I could not secure papers on trade interests. I have been making every effort possible to secure papers on trade interests, and as the pharmacist himself is the one to whom I should apply for these papers, and as I have done so and in most places been unable to receive a reply, I am not prepared to give a very long report, but for scientific papers I have a number to call upon, Dr. Prescott and a few from the University in the hands of Prof. Stevens. These are the only papers I have.

President: What is your pleasure in respect to this report? He has some papers of a scientific nature to offer. What will you do with those? Shall they be read by title, or read and discussed?

Mr. Russell: Prof. Prescott and I examined the medicinal drugs for alkaloids, and the Doctor has something to say on the recently-established course and degree of Bachelor of Science in the University. I think those would be very good to be read in full instead of being read by title.

President: I think it would be very well to listen to some of the subjects mentioned, the subject which Dr. Prescott has.

Dr. Prescott: If Prof. Stevens is ready, I prefer that he should be first.

President: By your permission, I will call upon Prof. Stevens first.

Prof. Stevens: I would like to say this: I believe in coming when we are put. When we are put on for a certain time, I believe that is the time we should be looked to to report. Everything I have is in

my satchel several blocks from here. However, if you want the papers, I will go and get them.

Mr. Anderson: I believe in doing business on schedule time, as Prof. Stevens says. Now, here is an opportunity for people to report, and they are not here. I should be very much in favor of giving Prof. Stevens the time he asks for, to come before the meeting on schedule time.

President: What is your pleasure? It is for you to decide what we shall do.

Dr. Prescott: Mr. President, I can offer one of those papers, or both of them if you desire. One of them, probably, will take the time until Prof. Stevens returns.

President: I do not think this requires a motion. If the Association is satisfied I will call upon Dr. Prescott to read the paper which he refers to.

Dr. Prescott: Mr. President, I will give you the outlines of the work which was done upon some Philippine Island drugs by Messrs. Mallett and Marsh of the University school. These drugs were obtained by an exploring party that went out from the University about two years ago, I believe, following the party of Prof. Steere. They went out for exploration and collections in Natural History. Some of the members of Prof. Steere's party went the following year and they obtained quite a collection of drugs of medicinal repute in the Philippine Islands. Prof. Wooster, now in the University, was conversant with our collection, and gave to the gentlemen who engaged with me in this work the description of them and their history, so far as it could be obtained from the natives. The collection was placed in the hands of Messrs. Weeks & Co., Jackson, pharmacists and manufacturers, and I would say that my report for publication in the proceedings is now awaiting a reply from Weeks & Co. I supposed I should have that reply before coming to this meeting, but failed to get it, probably through the absence from home of the members of the firm. However, I can give all the points of interest, so far as necessary. Mr. Schmid, a graduate of our school, who is with Mr. Weeks, has placed them in my hands for analysis. Now, I will give you a description of the drugs. No botanical determination, exact identification or classification of these drugs was made. A botanical description is given here, but the full botanical classification has not been determined upon, and the names by which they are here designated are made of the English spelling of the native names, I suppose going by sound.

EXAMINATION OF SOME PHILIPPINE ISLAND DRUGS * FOR ALKALOIDS.

BY PROF. ALBERT B. PRESCOTT.

The object of the work here undertaken was: (1) To find whether these plants contain alkaloids, or other distinctive principles, or not.

(2) If an alkaloid should be found, to obtain it in a pure state and determine its solubility, reactions, etc.

(3) To derive its formula.

The drugs worked upon were obtained from the Philippine Islands by parties sent out in the interests of the University of Michigan. Leaving the botanical determination of the plants to other hands, we will for the present report designate them by the English spelling of their native names and by these alone we shall be compelled to refer to them.

METHOD OF ANALYSIS EMPLOYED.

(1) The drug reduced to a fine powder was digested, on a water bath, in a flask fitted with a small return condenser, with about fifty parts of alcohol, to which about one-twentieth part of sulphuric acid had been added for several hours.

(2) The contents of the flask were strained through muslin and then filtered clear. The filtrate was then placed in an evaporating dish and concentrated on a water bath to about five parts. Sufficient water was then added to precipitate resins and other plant constituents, which were then removed by filtration.

(3) The filtrate obtained was placed in a separator and shaken out several times with an equal volume of chloroform to remove coloring matter, etc. The chloroform was then evaporated and the residue examined.

(4) The watery solution in the separator was then made alkaline to litmus and immediately shaken out with three to five portions of an equal volume of chloroform and the chloroformic solution reserved (Extract I). This was then followed in the same manner with amylic alcohol (Extract II.)

(5) The chloroform of "Extract I" was evaporated and the residue dissolved in hot water acidulated with sulphuric acid. The whole was then filtered and reserved for tests. Extract II was treated in the same manner.

(6) The filtrates were first tested for alkaloids by the following general reagents: iodine in potassium iodide, Mayer's reagent, phospho-molybdic acid, bromine water, tannic acid and picric acid, and the test tubes set aside for several days to allow precipitation to take place. In the meantime, various tests for the more common alkaloids were applied and any color reactions noted.

The following drugs were analysed by the method given above, but gave no reactions for alkaloids, their medicinal activity being doubtless due to other plant constituents:

Dolulugai—A seed of a light slate color and having a very hard testa. It is nearly spherical and about half an inch in diameter. The kernel is of a very solid texture, having a characteristic odor and a bitter taste. It is said that the natives of Philippine Islands dissolve the powdered Dolulugai in vinegar and employ it as a specific for all pains of the stomach, also as a poultice in rheumatism. It was said to contain strychnine, but this is positively not so, since on analysis it gives entirely negative results. The principal constituents found on analysis were fixed and volatile oils.

Mountain Cinnamon—A bark from one-fourth to one-half an inch thick, of a dark brown color and having an odor resembling a mixture of spices rather than the true cinnamon. It contains an aromatic volatile oil, tasteless resins and a very large amount of coloring matter.

Manugal—A very hard fibrous rhizome with rootlets, used by the natives as a stomachic, also as a purge by boiling thin shavings of it in cocoanut oil. It contains no alkaloids but has a considerable portion of acid resins.

Vita—A bark of a very thick, coarse texture, used as a remedy for fevers. Nothing was found to which its medicinal properties could be ascribed.

Macbujai—From parts of drug in our possession we are unable to determine to what plant organ it belongs. It contains considerable resin, coloring matter, and other plant constituents. The drug is excessively bitter and is used in the form of a decoction as a remedy for fevers.

Tagalaoi—Small branches or shoots having a bark about one-sixteenth of an inch thick. The only important principle noted was a thick balsam-like resin. It is used as an antiseptic. The usual mode of application is to boil the inner bark in cocoanut and then use in the treatment of wounds.

The work done on the above mentioned drugs was, as far as the presence of alkaloids is concerned, of a decidedly negative character, none of the plants giving the slightest trace of their presence.

Arbuta—Samples of this drug in our possession consist of billets about one and one-half inches in diameter and several feet in length, of a tough, fibrous wood, having a very characteristic cross section not unlike *pareira brava*. The wood beneath the bark is of a uniform yellow color. Upon extracting with acidulated alcohol, and purifying the extract by the process previously given, the solution containing the alkaloids as sulphates gave heavy precipitates with all of the general reagents for alkaloids.

From the fact that it colored the chloroform yellow when shaken out from the water solution, we were led to believe that the alkaloid was berberine, and by carefully conducted tests this was verified. It responded to all tests for that alkaloid, and we were able to produce the hydrochloride under the microscope.

As to whether a white alkaloid is present, as in many other berberine bearing plants, we are unable to say. The limited quantity of material and small percentage of alkaloid present were insufficient to attempt a separation. The amount of berberine or total alkaloid, if another be present, was determined in the following manner: A portion of the drug (5 Gms.) was weighed out and mixed with 2 Gms. of magnesium oxide, the whole was then carefully transferred to a Soxhlet extraction apparatus and extracted with a mixture of alcohol and chloroform (1-3), until exhausted. The extract was then placed in a separator and shaken out with dilute sulphuric acid. The combined acid solutions were then made alkaline with ammonia and shaken out until all coloring matter was removed. The combined chloroform washings were evaporated to constant weight in a tared beaker; the per cent. obtained by this process was one-tenth of one per cent.

President: I suppose this paper will take the regular course and be referred for publication. Is there any discussion, or are there any questions that any one would like to ask?

Mr. Russell: Dr. Prescott has a paper upon the newly-established course, at the University, of Bachelor of Science.

President: If Dr. Prescott is willing, it would seem to me as good a time as any. We will hear from Dr. Prescott upon the newly-established course in the University, leading to the degree of Bachelor of Philosophy.

Dr. Prescott: As many of you may have noticed at the May meeting of the Board of Regents of the University, there was established in the School of Pharmacy a course of four years of study, in addition to the present course of two years of study for graduation; two years of study for the degree of Pharmaceutical Chemist, in addition to this course, the latter being left in all respects without change. It may be said that the new course makes no immediate change and causes no increase in expense to the University; it needs no new studies, nor any additional classes.

DEGREES IN PHARMACY AT THE STATE UNIVERSITY.

BY PROF. ALBERT B. PRESCOTT.

At the May Meeting of the Board of Regents of the University, there was established in the School of Pharmacy a course of four years of study for graduation, in addition to the present course of two years for the degree of Pharmaceutical Chemist, the latter being left in all respects without change. The interest of the Michigan State Pharmaceutical Association in the School of Pharmacy has been so beneficial, both to the State and to the University, that it seems desirable to render some account, at this time, of the relations of the new course and of the reasons that have led to its establishment, so that this step should not be left open to any misunderstanding.

In the first place, the new course makes no immediate change and creates no increase of expense in the University. It needs no new studies, nor any additional classes, because all the studies of the new course have been given for some years in the University. The chemical studies of the new course have been given by teachers in the School of Pharmacy, and given to students of the Department of Pharmacy, as well as to larger numbers of students of other Departments of the University. They are studies that must be provided for the several Departments. The exclusively pharmaceutical work lies mainly in the two years' course and in the margin of advanced work needful thereto. Graduates of the School of Pharmacy, and students of other departments have been taking all these additional studies, either while working for degrees in other departments, or when working without registration for any degree. The new course, therefore, has gradually organized itself out of the educational elements of the University, under the wants of a limited number of individual students from all parts of the country, without the inducement of a distinctive pharmaceutical degree. And this last step in the evolution is but the authorizing of a name for certain University children already being born of legitimate conditions.

There have been fifty of the graduates of the School of Pharmacy, bearing the degree of Pharmaceutical Chemist, who have taken college and University degrees in literature and science. The number who

have taken a degree in science and literature before taking their degree in pharmacy is twenty-seven, after taking their degree in pharmacy twenty-three. These are, of course, aside from the larger number of Ph. C. graduates who have taken a degree in medicine, whereby in most cases they leave the pursuit of pharmacy altogether. Larger numbers than those just given have taken advanced studies, after graduation in pharmacy, without taking another degree. Now, to illustrate the demand there is for men of advanced training, let me cite the seven men who in the last eight years have first obtained the degree of Ph. C. and afterward continued work in the University and graduated as B. S. in Chemistry. For both these degrees fully five years of work are necessary. Of these seven graduates four are now professors in schools of pharmacy, one is the chemist for a manufacturing drug house in Philadelphia, one is analytical chemist for large works in Canada, and the remaining one holds a fellowship for chemical research in the University of Chicago. For five of the seven their practical pharmacy is a necessity, and for the other two it is a resource liable to be wanted at any time.

There are at present a considerable number of families who desire to give their sons, and perhaps their daughters, the advantage of full college education for the benefit of liberal culture, provided that the son or daughter can be fitted for a pursuit within the college four years, a pursuit, we will say, other than that of a teacher in a high school. The question is not how to get the shortest professional school training for a pursuit; that question is a different one and comes from very different persons. This question is how to get good professional training, with the discipline of liberal studies, and within the four years of college. To these four years the high schools give introduction. Beyond the extent of these, many people do not want to go to college, and within about this habitual period of college work they want to gain a professional equipment. They may look toward engineering, civil, electrical, or mechanical. Of course, they may look to ordinary business after college, as many college-bred men do, and with good success. They may look to pharmacy, with a view in part to its mercantile aspects. The poor jokes about the college graduate as a helpless snob stuffed with the conceit of learning but really unfitted for business will continue to have currency in the newspapers, a currency favored by callow writers who have never done good work enough to get through the high school. People know better. There are many hard-working young men and women earning money for college who know better. Well-grounded scientific training, so far from unfitting men for the realities of industrial life, compels the student to meet these realities. If he cannot meet them he fails in college—he is sifted out beforehand.

On this point the united chemical industries of Germany, in their corporate authority at the World's Fair in 1893, expressed their judgment from experience as follows: "The practice known in other branches of manufacture, of taking apprentices, has never obtained, even experimentally, in German chemical factories. On the contrary, the kind of preparatory training required for admission into a chemical factory has always been that of the scientific investigator. Manufacturers only require of their assistants a thorough scientific education, taking upon themselves their initiation into the technicalities of their special branch of business, a task at all times rendered the easier by the fact, that from the very first day the young chemist finds occupation and the means of gradually becoming acquainted with his duties, in the laboratory never wanting in a chemical factory. If confronted in his future career with new problems, he falls back for their

solution upon those methods of strict scientific investigation, so familiar to him in his student days. * * It may be asserted that, not only are the strength and productive power of German chemical industry based upon the intimate connection between science and practice, above described, but in that intimacy lies the surest safeguard that German industry will long continue to hold the prominent position which, with such strenuous exertion, it has ultimately achieved."

This German declaration is applied to chemical manufacture, which, of course, practically includes manufacturing pharmacy, subject to the same laws of success. In dispensing pharmacy the same economy is applicable so far as this, that the "initiation into the technicalities of their special branch of business" is a task rendered easier by the fact that the learner is already habituated to precise obedience to direction and close attention to detail, in laboratory work, also that he has an intelligent understanding of the materials of pharmacy and the authorities upon their manipulation. In all professions and pursuits of skill, the training of the technical school is coming more and more to precede the initiatory practice, instead of following it. However, for my own part, I am not a stickler for any one set order in the succession of studies in the school, or of practice and study in a profession. To get both practice and study sooner or later, in any order, is the main thing. The eager determination of the man is worth more than any logical sequence in his studies. Men who have that steadfast will for education, that they mean to get it if they have to take it all wrong-end-foremost, are the men who are sure to succeed.

These considerations apply both to the course of four years, and to the more commonly applicable course of two years, at this School of Pharmacy. The two years' course is by no means disparaged by the addition of another course. It will continue to be the regular course for the large majority of those coming to the University for pharmaceutical studies. Its alumni list gives sufficient proof of its adaptation to the public service in all the branches of pharmacy. As a college course its four semesters are crowded to the utmost. Each of its semesters is worth much more than a short term college-year. A college of pharmacy course with but slight laboratory training, and that taken or not taken, wholly or mainly at the option of the student, can never confer a Ph. C. of repute, in comparison with the degree given by the university schools of pharmacy. It is the solid laboratory training, holding the student from morning to night through college years of full nine months, that has made the college diploma of Pharmaceutical Chemist a coveted title in the United States. The university schools need have no fear that the honor and practical credit of this title can be borrowed by schools who propose to graduate pharmaceutical chemists upon three winters of lectures, mainly in the evening, the laboratory being about as "advisory" as the Latin for entrance in an old-time medical college, and the commencement coming in March. Where the work that has given meaning to the degree is taken out of it, there it will have no more value than another degree in pharmacy. To be sure, it is an acceptable proof of the value the title has gained that it is even so tardily appreciated, but it must surely be known by this time that it takes something beside the absence of the apprenticeship requirement in college to make a "Pharmaceutical Chemist."

In adding an extended course in the School at Ann Arbor, it is found that in making the course higher, it must be made broader as well. In giving more advanced science, the languages of scientific literature and a better command of English writing, as well as the support of physics and mathematics, must be supplied, all in keeping

with the bachelor's degree. Consequently the course of four years is a logical step next beyond that of two years.

On a footing then with university departments of technology, if pharmacy is to have a full college course, it must naturally receive a bachelor's degree. In agreement with the usage of the State universities, and the majority of other American universities, the degree must be that of Bachelor of Science. In accordance with a custom which began in the East, and has become general, a degree in specialized science may be followed by a clause defining its specialty, this definition being seldom written but always at command of the recipient. In accord with B. S. in civil engineering, in biology, in chemistry, etc., we have B. S. in pharmacy.

The evolution of a four years' course in pharmacy at university schools of pharmacy and the adoption of the B. S. degree in pharmacy for such a course are so natural that it is not strange, though certainly noteworthy, that the same extent of course, with the same title for graduates, has been announced in four state universities, at about the same time, although without conference together upon this matter. And the influence of the university schools of pharmacy upon the trend of pharmaceutical education can be apprehended from the history of events, and from the demand for experts in places of responsibility.

The diversities of title for college degrees are commonly mentioned just now as a matter of regret. Some educators are exercised because we have bachelors of arts, of philosophy, of letters, and of science. I am content that these titles all have the leading term in common—they are all bachelors in learning. Doubtless this is enough of uniformity, for there is great diversity of college work to be represented. But let us hold onto the custom that the graduates of the first degree in colleges of science and literature are all entitled bachelors. Likewise the second degree in a college of science and literature is a Master's degree, whether of arts, science, philosophy, or letters. And again the third degree, following the first and second just named, is a Doctor's degree, whether of philosophy, science, or other variation. But at this point there appears the American discrepancy, for there are medical doctors and dental doctors, not following the bachelor's degree. This, however, agrees with the established vernacular, in addressing the physician as the doctor, irrespective of his college education. The word doctor is an established synonym of the word physician, in the English language of this country. As the address of the physician it means, not so much learning or teaching, as helper and counsellor against disease, the family defender against the dread destroyer. This meaning gives the greater honor. That this meaning has become deep rooted in our tongue is shown by its secondary application; thus, according to Webster's fourth definition of the noun doctor, it may be "any mechanical contrivance intended to remedy a difficulty or serve a purpose in an exigency, as the doctor of a printing machine, which is a knife to remove superfluous coloring matter." To the public ear the word doctor means one thing in one case and another thing in another case. We have a more extreme disparity of meanings for the noun "drug." As a medicine it is choice and frequently rare. As an indeterminate article of merchandise it is something that no one can be induced to buy. And this perversity of definitions for the name "drug" is very much older than the modern state of the "drug" business. Whether or not pharmacists may come to be addressed as doctors, and what would be the effect of this courtesy of address upon pharmacy as a pursuit, are questions for individual judgment and preference. At all events, any title of address acquires its

honor from the class of persons to whom it belongs. Man is not the creature of terms, but terms are the creatures of man.

President: The paper which has just been read by Dr. Prescott seems to me to be one of exceptional value, and, personally, I have been very much gratified to hear the Doctor express his views so plainly with respect to the pharmaceutical colleges. I would be very glad indeed if the sense of this meeting could be expressed by way of a discussion of that paper.

Mr. Ward: There was one point brought up in this paper which does not particularly relate to the drug business. It was something in regard to education. I would like to ask the Professor whether he doesn't think there is a logical order of studies? The question originated this way: In making a curriculum for the school of which I have the honor of being one of the members of the Board, we had before us a report of what is called the Committee of Ten. This Committee, in making a curriculum for the schools, claimed that there should be a sequence in the order of studies and that chemistry should be taught before physics. Discussing that with the Superintendent of our schools, I claimed the opposite of that, although he was one, of course, who had very good authority, so far as this report was concerned. But it did not seem to me to be the logical order in which the two should come. Now, the Professor has touched upon this point in his paper. He says it doesn't make any difference how those studies are—not particularly relating to those, but how any studies should come—so long, of course, as the student has the energy or the desire to acquire the knowledge. Now, I have taken the position that it does make a difference; that there are certain things in one study which cannot be understood properly without some knowledge of the previous one, and that this applies to chemistry and physics, and I should like to have the Professor's opinion on this subject, just to settle the question, so far as my own mind is concerned, in regard to this celebrated (so far as educational matters are concerned) Committee of Ten.

Dr. Prescott: I do not want to be misunderstood on this subject. I do not mean to say that it is of no consequence, as it is sometimes quite important. In the School of Pharmacy, for example, certain studies have to come before certain other studies for the regular student. We are pretty stiff, I confess, about the order of studies in some cases. There are instances where we are not. We waive that, however, when the student comes from another college, having taken part there. Upon coming to us they can take our regular order of studies. In regard to this question of practice before college study, or study before practice, we have both kinds of men in the School—those who have had apprenticeship in a drug store and those who have not. It is the kind of men that you have, though, which counts most of all. We have first-rate men among both kinds. I wish to express the belief that a year of practice in a drug store—apprenticeship, if you

please—taken after the college work, with a good student, a good worker, is worth a good many years taken before, but I believe most of those who have taken the apprenticeship before college are doing well. I should very much prefer to have physics always before chemistry.

President: Any other remarks? Mr. Walker, of Detroit, usually has pretty good ideas upon this question of education. I would like to hear from him.

Mr Walker: The subject has been brought up a good many times and has been written up in all the chemical journals. I believe that a certain amount of experience before the college course is desirable, but not absolutely necessary. I think that too much experience, too much shop work before the college course, is in a good many cases time thrown away, and, in the large majority of cases, I think the young man has spent time in the drug store that he should have spent in the high school. I find, as a general rule, that, where a young man has had three or four years' experience before taking his college course, he is not a graduate from the high school. He is usually deficient in a good many studies that he should have had before taking his college course. I think that is particularly true of mathematics. Further, I think he is out of the habit of studying; it takes him considerable time to acquire this on entering college. I have had both kinds of men in my employ; but, in speaking about which kind makes the better clerk, I would say that I look upon it just as I would the buying of a horse—whether I want a saddle horse or a race horse. The man who has been brought up with nothing except shop experience is, as a rule, the better salesman of the two, and in a great many cases he will give the better satisfaction, especially where the business is conducted more on a mercantile than on a scientific or professional basis. But I have found, where a man has had comparatively little shop experience, that after three or six months—or, at the most, a year—he is in every respect a better druggist than the man who has had nothing except shop experience. I presume it has been argued by a good many people that a college course is not especially beneficial for a man in some branches of the drug business; there are some things he doesn't like to do. I have never had any trouble about men not wanting to do the dirty work, as we call it, around the store; they do not object to that. But when you ask a man who has had a college education, and who has, necessarily, acquired some little pride, to put on a white coat and tend soda fountain, he objects, and I don't blame him. But when you put him behind the prescription counter, he is infinitely better than any man can be who has not had a certain amount of scientific and technical education. The man with the technical knowledge works intelligently; the other man works mechanically.

President: Any further remarks or discussion on these papers? If not, we will, before listening to Prof. Stevens' paper, go back and

hear the report of the Committee on Legislation. Mr. Vernor is with us now, and as his time is occupied, in deference to him, we will listen to that report at this time.

Mr. Vernor: At the request of Mr. Bassett, who is Chairman of that Committee, and Mr. Peck, who is the associate member (I being the head-ender), I will be obliged to give you a verbal report of what occurred at Lansing last winter. It is safe to say that we had our biennial trial, and it is past, thank God! and we have two years yet to breathe. I guess Dr. Prescott feels about the same way. We went out there and found seven or eight bills that were inimical to the interests of the drug trade, and we endeavored to convince the legislators, by the best arguments that we could make, that they were inimical to our interests, and to the interests of the public generally; and I will say for that Legislature that, when they were shown the facts, they were willing to accept them, and we had no difficulty whatever in placing all of the bills in pigeon-holes and keeping them there. The main bill that we had to contend with was the Richardson pharmacy bill, so-called, which proposed to place on the registered pharmacist list of the State every physician in this State, without the formality of coming before the Board of Pharmacy, or proving their efficiency as pharmacists at all. Every doctor was at once to become a full-fledged pharmacist, no matter how he became a graduate. Well, that one bill showed the great value of organization, and it is the one thing alone that ought to bring together all the pharmacists in the State and make this Michigan Pharmaceutical Association a body composed of every pharmacist in the State. We killed that bill by appeals to our friends. We went to the Board of Pharmacy and asked them to give us their help and to mail out for us circulars (which was contrary to law, possibly), but at any rate we got the circulars out to our friends in the State, and floods of appeals came back, petitioning the legislators to pigeon-hole the bill in question, to kill it, to do anything with it to get it out of the way. Mr. Richardson very soon saw that he had no hopes of passing the bill, and he went to the Board of Pharmacy and asked their assistance to pass the bill, assuring them that, if they would get up a bill that was satisfactory to them, he would turn around and put their bill in as his own. The Board of Pharmacy told him that they would take about two years to think it over and they are thinking it over now. The probabilities are that Mr. Richardson will not be interfering with us two years from now. The other bill that was detrimental to our interests was one known as the health bill—a pure food bill. It proposed to place the Dairy Commissioner in charge of the drug interests of the State. What do you think of that? Fortunately, we had Senator Eaton at the head of the Joint Committee of the Senate and House, he being a good loyal pharmacist. I was given an opportunity to speak for about five minutes before the Committee one evening about midnight, and when I got through the Senator said:

"Those are my sentiments, Mr. Vernor, and, as long as I am at the head of this Committee, it will never report out favorably a bill to put a Dairy Commissioner at the head of the drug business. Consequently, that feature was wiped out of the bill instantly, and we had no more trouble with that bill. There were several other bills there of more or less importance to us—the Brundage bill, the Redfern bill, one gotten up by Mr. Matthews, of Detroit, known as the Navin-Simpson combination, and they had quite a time with that one. I was up there for three weeks, probing around and searching for some clue by which I could connect that bill with this firm of attorneys in Detroit. I finally discovered what I ought to have found out in about five minutes. I discovered that the bill was introduced into the Legislature just one day after the letters from this law firm had been sent, with copies of the bill, to the patent medicine men of the country, asking a retainer fee to fight the bill. Well, all we had to do was to get a copy of the bill that was sent with their letter, the date of their letter and a copy of the bill, as it was introduced into the House, and the date of its introduction, lay them before the various members of the House, when they would throw up their hands and say, "That bill is no good." That bill was killed very quickly after we found a clue. We really had no very hard work out there. It was rather a pleasant duty, that is, as pleasant as anything can be living in Lansing during a session of the Legislature.

Quite a number of gentlemen from Detroit came out there, the President, Mr. Perry and others, and we labored hard with the Legislature one day. The President lost his hat in the operation; but I am happy to say that the status of the drug laws of the State is just exactly as it was before the Legislature convened (applause).

Mr. Whitmarsh: Commenting on what the member of the Committee has said, it seems to me quite a favorable report. It reminds me very much of a report which a physician made of the first case of peculiar practice which he had. It was a case of confinement. The woman, unfortunately, died, and the child died, but he saved the old man! I think we have saved our Pharmacy law, what there is of it. If we have beaten off the enemy for two years, I think we have gained ground. This verifies an opinion which I have, however, and that is that we want a large addition to our force in order to beat off this enemy which we have got to fight every two years as long as we live. I suppose we all understand that what we have got to do is to have some kind of a recruiting service established, so that our force will be large enough when compelled to meet the enemy again, because they may be stronger then than they have been of late, and may meet us with different tactics. But I think if we haven't the support of numbers, we always have the support of merit on our side.

Mr. Vernor: I will say this: if the pharmacists of the State only appreciated what was saved to them by the fighting off of the legisla-

tion of this year, they could not help but stop talking about what benefit they would get by paying one dollar a year to belong to the Michigan State Pharmaceutical Association. It would have been the ruination of at least one-tenth of the druggists of the State if one-half of the measures that were out there had been enacted, and at least two of them were stopped through the work of this Association. And the druggists of Michigan who do not belong to this Association owe it to this Association that they are safe to-day—lots of them.

President: You have heard a favorable report from Mr. Vernor. What he has said in regard to the Legislature adjourning and our being left to breathe in a natural way, I can fully substantiate. I am sure that since the Legislature has adjourned, I have been taking long, full inspirations, but, as has been said by Mr. Whitmarsh and reiterated by Mr. Vernor, there is a lesson to be learned from our experience out there last winter. I do not think it was altogether a walk-away on our part—at least, I do not feel so. I feel—and I think every other member from Detroit feels the same way—that we had to put in some good, hard, earnest work in order to defeat those measures, and the lesson which we must learn is, that organization is what we must come to if we ever expect to save what we have secured and get anything more. I believe if we can in some way organize thoroughly the pharmacists of Michigan, we can not only prevent any future adverse legislation, but we can gradually improve upon our present pharmacy law. At present, at least, I have felt that the best thing to do, perhaps, was to let well enough alone, and not try to secure any amendments to that law; but if we could cover the State as we ought to do (we have strength enough, we are represented everywhere), we should have weight with every member in the Legislature sufficient to get any sort of reasonable legislation that we saw fit to ask for.

Mr. Walker: I was rather surprised to see the amount of opposition that that pure food law met with among the retail druggists, not on account of its being put into the hands of the Dairy Commission, but because they seemed to object to any kind of a law that would establish a standard for their pharmaceutical preparations and impose a fine on a man that would sell drugs, spices or anything of that kind which were not pure. They had the idea it was going to ruin their business. I have always maintained that a standard is just what we want. We need a law that will compel the druggists of the State to conform to the requirements of the Pharmacopoeia, which would not be a very heavy burden on him. The thing, perhaps, does not come in just here, but it is generally understood that the Pharmacopoeial standard is the standard of medicine. That is all right, theoretically, but it isn't. The standard that most of our physicians seem to take now is the standard of some manufacturer; it is not a pharmacopoeial standard. And there is nothing affecting a man whose preparations are not up to standard, but it is his own lookout. He may injure his business after

awhile, but he is not compelled to standardize them. And it seemed to me that the food law, in its relation to the drug business, if it was put in proper shape, and presented in the proper manner from the druggists of the Michigan State Pharmaceutical Association, backed up by the State Medical Association, would be a good thing for everybody. It would not be necessary for us to take the arbitrary standard of some manufacturer, but we would have a standard established by law.

President: This question has always been of interest to me. I would like to hear an expression of opinion.

Dr. Prescott: Mr. President, the danger which Mr. Vernor cited—the introduction of bills into legislatures in the interests of those who want to get paid for killing them—is really a serious evil at the present time. It is a very serious evil. Other states have suffered very much more than Michigan. It has come in my way, incidentally, in being consulted as an analyst and expert, to learn what outrageous proceedings are instituted in some states. The very fact that some reformatory legislation is really needed, and that the public have become aware of it; that there is a feeling in the public mind that some reformatory legislation is needed for this or for that, is taken advantage of by these sharks to introduce a bill; but, in the majority of cases, the man who introduces it is very sure to have some defect in it which admits of its being killed. I do not think there is a more conservative body in Michigan regarding questions of adulteration and regulation of purity of foods and medicines than the Michigan State Pharmaceutical Association, and I am very glad that the Association is able, and hope it will ever be able through its officers and members, to look out that these jobs are not worked through our Legislature.

Mr. Vernor: There is one thing I wish to say for the benefit of those who may succeed me on the Committee on Legislation, and that is in the way of information that I obtained out there. If you ever go out there to work against a bill that is introduced on these blackmailing lines, you will find your whole trouble right in the Committee—to get the Committee to report out that bill. The first work you want to do when you go before the Legislature, in fighting a bill of that character, is to go to the Committee and ask them to report unfavorably on that bill. They will tell you that they do not want to report unfavorably on any bill; they do not want to report any bill out unless they can report it out favorably, and that the presenter of the bill, the introducer of the bill, has requested them to hold the bill. He holds it for what? Because the gentlemen who have handed him the bill to introduce tell him, "Just hold onto that bill in the Committee; don't let it go out." They have not retainer fees enough yet. When it comes out they will kill it, or else they will kill it in the Committee with an adverse report. That is their game, but your hard work is right in the Committee, to get the Committee to see plainly that it is a blackmailing scheme, and that you want to get it out to the

House, when you can show it up and let your Representatives vote on it. When one of those blackmailing bills can be shown up, you can kill it quick enough in the House.

President: We are always interested in knowing what is being done outside in other states. We have with us to-day a gentleman who has a very large interest in these matters that we have just been discussing—a gentleman from the far South; and I am pleased to introduce to you Mr. Girling, of New Orleans.

Mr. Girling: When I arrived on Monday I had no idea that there was going to be any meeting, and, consequently, I did not come prepared with any paper on any particular subject; but I would like to say a few words bearing on the remarks of Mr. Walker with regard to the desirability of having a Dairy Commissioner placed in charge of our pharmaceutical interests. It seems to me that such a proceeding would be entirely anomalous, entirely out of place. As a general rule, men who are capable of making an analysis of milk and food products like that are not capable of going through the whole category of pharmaceutical products. It seems to me that the Board of Pharmacy are the proper persons to undertake such a duty, and they are the ones, in our State, who are empowered with the authority to do so. They have power to look after the purity of drugs; they appoint committees for investigation; they send out exploring parties who buy pharmaceutical products from different drug stores for them to analyze and report the results to the different meetings. If any adulterations are found, the matter is turned over to the Board of Health. The chemist of the Board of Health makes an examination of the product suspected or proven to be adulterated and the person is prosecuted. That is the proceeding in Louisiana. So far as authority is concerned, our courts have decided that the United States Pharmacopoeia shall be taken as the authority for the standard of purity for all pharmaceutical preparations; and whenever there is any question as to the purity of a preparation, it is always referred to the Pharmacopoeia. If it is a preparation from any of the foreign Pharmacopoeias, such as the Paris Codex or the German Pharmacopoeia, they are consulted and are taken as the standard. We have a great number of French people. Consequently, if you take paregoric made from the standard of the French Codex, you will have what looks to be a wrongly made preparation—it is a dark red. Some paregoric bought in another drug store down town was once brought to me for examination. It was dark red in color and the purchaser thought he had been poisoned. I simply replied by showing them a copy of the Codex, from which the preparation was probably made. They had it analyzed by another chemist and found that it was correctly made, so far as the amount of opium was concerned. That set that matter at rest, but, as a general rule, our courts always hold that the United States Pharmacopoeia, which I believe to be the very

best Pharmacopoeia in existence, is the one which shall be taken as the standard.

Mr. Walker: I do not think the gentleman exactly understood my remarks in regard to a Dairy Commissioner. I do not want you to understand that I advocate any Dairy Commission to look after our preparations; I did not mean that at all; but in this state, as I understand it, we have no Commissioner—it is nobody's business to look after that. It may be in the State of Louisiana. I understand it is the case in some states, that the State Board of Pharmacy is expected to do that. Perhaps they have men whose business it is to do it, but we haven't anything of that kind. There are plenty of preparations sold here, not paregoric, but say Hoffman's Anodyne, which do not contain one particle of etherial oil. It is nothing more than a solution of ether in alcohol, and only part strength alcohol at that, the specific gravity being away above the specific gravity of alcohol. You will find spirits of nitrous ether the same way, I have no doubt, and I know there are hundreds of preparations sold in just that way. That is nobody's business; a man can do that if he has a mind to here, and there is no law against it. That is just exactly what I want to say, that it should be somebody's business to look after that. It is better looked after by the State Board of Pharmacy, of course; they are the ones to do it.

Mr. Russell: As to the adulteration of Hoffman's Anodyne, I have been unable to find one that has contained any etherial oil in my investigations.

A member: How about Squibb's?

Mr. Rheinfrank: Of course, in my neighborhood, being mostly Germans, they all call for Hoffman's Drops. Hoffman's Drops, in the German Pharmacopoeia, is spirits of ether. That is not supposed to contain any etherial oil. When they come in and ask for Hoffman's Drops in my store, they get spirits of ether.

President: You keep the two?

Mr. Rheinfrank: Yes, sir.

Mr. Walker: In regard to Squibb's preparation, I use Squibb's in my prescription work, and I tested it, using the test given in the Pharmacopoeia, and that was as far as I went. It corresponded with the ordinary tests of the Pharmacopoeia and answered every requirement of specific gravity and the other tests; but, upon trying a sample of the commercial article, it did not correspond with any of the tests.

President: We will now pass on to Prof. Stevens' paper.

Prof. Stevens: I move that we adjourn.

Motion carried.

THIRD SESSION.

On reassembling Thursday morning, S. P. Whitmarsh presented the report of the Committee on President's Address, as follows:

Your Committee on President's Address have encountered considerable difficulty in the execution of the task assigned to them, in the abundance of suggestions contained therein and, still more, from the fact that the last member of said Committee was compelled, at the eleventh hour, to sustain the butt end of the burden.

The President having, as he declares, his ears to the ground, has obtained knowledge of conditions that ought to be communicated in plainness, as well as in kindness, to every druggist in the State who values and respects his vocation.

One of the most important facts he has noticed is the disagreeable one, that not all who have a vital interest in the objects of the Association are fully equal to the emergency that confronts us to-day. In action, listlessness and a selfish desire for comfort are stubborn factors that stand in the way and must be overcome if we are to succeed in accomplishing any reasonable measure of good for the drug trade of this State.

The necessity of a more nearly complete organization of forces is set forth in terms that have no double meaning. We must have the "spirit of the fathers," whose motto was, "Millions for defense," if we expect to sustain ourselves, individually, in successful business. The foes of the druggist's prosperity are not professional competitors entirely, nor are grocers or department cutters the only ones against which to use defensive measures. The commercial features of the drug business are assailed with so much power and malignity in the Legislature that once every two years we are brought to a condition of cold perspiration by the annoying bills introduced which, at each session, hang over us like the sword of Damocles, until the last one has passed the scrutiny of the official who seals their fate. If ever the strength of association is needed at all, it is needed to defend us from the evils of impractical and dangerous legislation. To do this successfully every druggist in the State should be enrolled as a member and stand ready as a minuteman to answer to the call of the President at the first alarm.

In this connection it may be advisable to recommend some plan that shall enlist the individual aid of enough druggists in each county to form a home guard against the time of need. A circular calling especial attention to the dangers from legislation, emphasized by our narrow weapons in the past, is likely to be of service in adding double the names and dollars, so desirable in a defensive campaign, especially if every member now enrolled will consider himself a committee of one to urge upon his neighbor the plain duty of the hour. They should be persuaded of this one fact, that when pharmacy becomes unprofitable as a commercial venture, through unfriendly legislation, science cannot save it. It may assist by its testimony at the inquest and analyze the contents found in the stomach, but that will not bring the corpse to life nor comfort the mourning friends.

Our President admits that the evils arising from price cutting must be met, if met successfully, by the retail druggists themselves, which emphasizes the necessity he urges for an increase in enlistment work of some kind. As an axiom of mathematics is that "the greater includes the less," so will more perfect organization of forces cover other points of interest named in the address.

Your Committee is convinced that the advice of our President to place ourselves on record with respect to the question of free alcohol is wise, providing all the bearings of this question are fully understood; but since the large majority of retail druggists fail to understand how any plan hitherto proposed can be made to harmonize with the rights and interests of all concerned, there is need of more light on the subject than has been thrown by Government officials or by those applied to by the trade to assist in arranging details for an impartial rebate. Your Committee is ignorant of the plan proposed by Dr. Squibb, but if it is as popular as most of his preparations it would be worth while to investigate it before precipitate action.

In conclusion, your Committee congratulates the Association on having to tackle an intellectual feast in the address prepared for your discussion. Although our President neglected to mention the weather, which is quite as important as other matters spoken of, yet it was more in pity than in anger, since he must have known that the topic is worn threadbare and further discussion would be useless.

President: You have heard the report of the Committee. What do you do with it, gentlemen?

A motion was made and duly carried, that the report be accepted.

A member: I think it might be well to have that Dr. Squibb plan explained. The Committee say they do not understand it.

President: The plan of Dr. Squibb is a very simple one. It does not consider the question of rebates at all--nothing of that sort. It simply proposes that all alcohol that can be so used that it shall be entirely changed, as in the manufacture of ether, chloroform, chloral hydrate, etc., shall be free, and shall pay no internal revenue tax. That has been suggested by Dr. Squibb as a means of stimulating new manufactures in this country, as those preparations are now largely imported from foreign countries. As he looks upon it, he sees a field for a large and profitable industry in this country in that line. That is all. I would like to hear some discussion upon this subject; it is a very important one. What do you think of it, Mr. Colman?

Mr. Colman: As I understand it, I think it would be a very wise and profitable arrangement so far as encouraging the manufacture in this country of those chemicals. I do not see as it would help us here directly very much, unless that in the end it would enable us to buy those chemicals, manufactured at home, for a lower price than we are paying for imported chemicals at present. I should say it was a step in the right direction. I suppose that a good many of us would like to go still further in the matter of alcohol, and have all alcohol made free which we use in the manufacture of medicines of any kind—not merely what manufacturing chemists use, but all of us. As I understand it, Dr. Squibb's proposition does not cover that. I think Dr.

Squibb's proposition is good, so far as it goes, but it does not go far enough.

President: Has any one else anything to say? I would like to hear from Mr. Prall, of Saginaw—a representative man.

Mr. Prall: I can but echo what Mr. Colman has said. We would like to have made free the large amount of alcohol that we use in manufacturing our pharmaceutical products.

President: Mr. Eberbach is a manufacturing chemist, to a considerable extent, and is, probably, in a position to enlighten us somewhat upon the financial results to be derived from such a proposition. I should like to hear from him.

Mr. Eberbach: The particular pursuits of our manufacture for the last few years have not extended very much in that direction. We have paid more attention in our laboratories to the refinement of chemicals for chemical research. I take the same view as Mr. Prall, that it would be to the interest of the pharmaceutical profession. If we can accomplish that in some way or another, it will be a source of great saving. The industrial point touched upon by Dr. Squibb is one that has been under consideration for some time and, no doubt, if that point could be carried, we should have some manufacturing interests springing up in this country that would be quite a source of employment for a good many chemists.

President: The idea I had in mind when I touched upon that point in my address was the general benefit it would be to this country in the way of establishing new industries. Whatever is of interest to our country is of interest to us. Are there any other points that any one cares to speak upon? If not, we will pass on to the next subject for this morning, which is that of Trade Interests, and we will listen to the report of that Committee.

Mr. Anderson, Chairman of the Committee on Trade Interests, then presented the following report:

The Committee appointed for the past year have not met together to discuss the question of Trade Interests; seemingly there has been no immediate call for their doing so; and, consequently, any question between them has been committed to correspondence. We, therefore, beg to lay before you the views of your Committee on the question of Trade Interests as affecting the retail drug trade, as it appears to them at the present time. We have, in compiling this report, referred to the previous reports made this Association from time to time on the question of trade, and find therein many wise and able suggestions and criticisms of the relations between the manufacturer, jobber and retail dealer. While these conditions have been worthy of notice by the different Committees making their Trade Report, it appears to us that very little has been done except discussion, without subsequent action, for the benefit of this Association.

Reports have been given to comment upon, and then the matter fell flat. Of course, under these conditions, very little permanent benefit can be derived. However, after reviewing the reports since 1888, there appear to be a few pertinent facts that have had frequent repetition, prominent among which are the following:

1. It is quite evident that the profits of the retail drug trade are being persistently invaded from all sides by dealers outside the trade and a constant effort seems to be needed to prevent such invasion and encroachment.

2. Harmony of action and mutual interests seem to exist between manufacturer, jobber and retail dealer, regarding the output of the different products common to the trade; but, with all this seeming harmony of interests, the condition of the retail drug trade grows worse each day and we are led to believe that this interest is only in name and not a fact in everyday business life.

3. A general and determined inertness and indifference by the retail drug trade, as a class, towards their own most vital interests, and the lack of perfect and efficient organization for strictly business purposes, and, when organized, no active measures are taken to enforce for their benefit. Such conditions being true, the wrecking of the retail drug trade interests would seem naturally to follow, and the present condition of trade is surely an evidence of that fact. Just here it is quite proper to mention the able report of the Committee for 1893 of which John E. Peck, of Grand Rapids, was Chairman. This report is teeming with good business sense and is worthy of close study. I propose to read from it certain sections which fully express the condition of affairs to-day, and which have grown worse rather than better since the time it was submitted, as follows:

"So far, there has been effected no organization of the retail trade of the country to the extent which is necessary to make the movement a success, and if it fails, it will be due solely to the supineness and lack of interest on the part of retail druggists. Because of this general sleepy condition, the manufacturers are beginning to get uneasy, and are not taking any too great pains to protect the retail trade, which they are finding will not, in turn, support them, and so far from cutting being on the decrease, it seems to be on the increase. It has also been learned that manufacturers do not object to selling to wholesale grocers. This, being an entirely new departure from established custom, tends still further to complicate the question. The jobbers generally supply all demands from parties in good credit, and no question is permitted to arise that interferes with the distribution of merchandise. Hence we cannot but recognize the discouraging outlook. In Detroit two or three cut-rate stores, one of them in connection with a large grocery concern, seem to be flourishing. Other sections of the State report cutting on the increase, and it would seem that if this organization desires to take any action upon this important matter, it must be done at once, and upon such a broad basis that it will bring into union the entire trade of the State; or, on the other hand, we must expect to lose all control of this portion of our business, and sell at prices which will adjust themselves according to the competition we meet."

ORGANIZATION.

To start with, this feature as a primary one is certainly proper. No one in these days can deny the benefits and necessity of organization. We see it in every walk of life, and it has been so since the beginning of history, when savages organized in a crude way for defense; later, for the accumulation of wealth, then for advancement in the sciences and arts, and so on to the creation of great nations and the conquering of the world. Without organization, nothing can be accomplished. Craftsmen enjoy privileges and benefits from their organizations that would practically be impossible to secure without such bonds of inter-

est. In our own business we have associations, but are they not lukewarm affairs and are not the meetings often more of a holiday than a convention for the necessary consideration of business? I think they are. Social features are well enough in their place, but they should not be enjoyed at the expense of business interests. Therefore, we would suggest and earnestly plead for better and more complete organization.

1. It appears to us that every man here should interest himself in bringing as many retail dealers into this organization as possible, for the purpose of strengthening it by numbers, for in unity there is strength.

2. No one should belong to the Association who is not actively engaged in the retail drug business. Free discussion is often hampered by the presence of those who have other interests that may not always harmonize with those of the retail drug trade, and any embarrassment preventing members speaking their mind on certain points should be removed.

3. A Committee on Trade Interests should be made a permanent one with executive authority, consisting of three, five or seven members, representing certain sections of the State, and they should be elected to serve one, two and three years respectively. A Trade Secretary should be employed by the Association, and meetings be held at regular intervals each year, say one in two or three months. The society should pay the expenses of such meetings, and before this Board all complaints regarding trade matters should be presented and there taken care of. As it now stands, trade reports are made, discussed in an indifferent manner, and then, each one having his own interests to look after, nothing practical is accomplished with them. This leads to the oft heard criticism that "the society does nothing practical," which is, indeed, true. One of the greatest reasons why the retail drug trade do not profit by association is that their operations are not conducted on business principles for permanent good.

SALE OF PROPRIETARY MEDICINES BY THE RETAIL TRADE.

This much discussed question has been before you many times, and, no doubt, you have read volumes covering the ideas of many who are interested in the question, both for and against your own interests; yet, after all this discussion, proposed restrictions, promises by manufacturer and jobber, and talkative expressions by the wholesale trade, where is the sale of patent medicines to-day? It is simply worse than ever, and what has all this pretension and talk amounted to? Simply nothing. There is no use for the members of the retail drug trade to look for the support and protection they have reason to expect from the manufacturers and jobbers. While there are many honest people who would willingly do all they can as manufacturers or jobbers to restrict the sale of proprietary medicines to the hands of the retail drug trade, there are just as many more who are willing to sell everything they can and anywhere, and where there is a weak link in a chain, there is no strength in any part thereof. It is time we looked this matter in the face and stopped listening to sweet words and sweeter promises, and took the matter up and did something for ourselves. We have abundant evidence that this line of goods find their

way into the hands of any one who wants them, and no one seems to have much trouble in securing them. The only practical method which seems to have been suggested, lies within the report made by Dr. V. Mott Pierce, read before the N. W. D. A., and published in our 1894 report. Fearing this may have escaped your notice, I will re-read it here:

"My proposition is not for the proprietors to join a trust, but to form a stock company, 'an association for the distribution of proprietary goods,' with headquarters in New York City, and a branch in every large city of the United States. To cover the territory as thoroughly as the present wholesale drug trade, it would require possibly 150 branch stores, but in many places the retail druggist would be glad to take the agency and the care of the warehouse. At the store of the Distributing Association all proprietary goods could be kept in stock, not only those goods of the proprietors who would take stock in the Association, but all outside manufacturers. That simply means that the proprietary goods of the United States would be handled in depots all over the United States, and distributed to the retail druggists from those points.

"The large manufacturers in the Association would then keep large consignments in the different cities, and, having their goods well distributed in this way in different warehouses, the fire risk would be distributed, and any delay in the manufacture of goods by reason of fire in the factory would not find the manufacturer unable to fill orders."

This report, you know, is written entirely in the interests of the manufacturer of proprietary goods, from his point of view. It affects the retail dealer, of course, from the fact that the distribution cannot but bring the retailer close to the manufacturer, without any intermediate stores, and they could control their goods to a greater extent than they can now.

"The sale of goods would be controlled absolutely by proprietors, and the cutters would find it much more difficult to procure goods. As soon as the retailer understood that by the establishment of such agencies the department store and the cutter would be no longer able to procure goods, and that they could be assured of their legitimate profits, their active co-operation would undoubtedly be secured.

"Cheaper freight rates could be secured by a central depot, for when a shipment was sent from the New York house to a branch, it would usually contain consignments from several houses in the East, making up a full carload.

"The branches could assist the proprietor in forwarding his advertising matter to the different druggists in their respective sections of the state or to the traveling distributors, the printed matter being shipped by freight to the branch in one consignment.

"It would be the duty of the manager of a branch to actively co-operate with the manufacturer and have responsible distributors or bill-posters for him, and see that the work was properly done at a nominal charge. He could also advise the proprietor as to what newspapers were the best advertising medium in the city, and investigate their circulation. In fact, the value of having such a representation in each large city, with an agent of the Association looking solely after the interests of proprietors, would be of inestimable value, and I have no doubt that, notwithstanding the claim of some jobbers that there is no money in handling patents at 10 per cent., such an Association would yet be able to make a good profit handling goods on a 5 per cent. basis.

"The closer the relations between the manufacturer and the retailer, the better it would be for the sale of proprietary goods. Where

now it is too expensive for the manufacturer to express small orders direct to the retailer, by such co-operation, and the establishment of branches, the proprietors come into almost direct relations with the druggists without the intervening middleman."

Now, while it may seem possible to effect this condition, it is highly probable the manufacturers will do nothing of the kind for obvious reasons:

1. They do not want so many small accounts as dealing with the retail trade would involve. The consequent loss and detail of business would be a very serious consideration to them. They like the check for the quantity purchase, their business being done much easier by trading through a few customers than through many. Yet, it is eminently proper we should heartily endorse this proposed departure, and pledge ourselves to patronize goods sold in this manner, and encourage this scheme in every way we can. To this end our delegate to the N. W. D. A. should be instructed.

We can but recognize the fact that as long as proprietary articles are offered through the broker and jobber, who are competitors among themselves for the patronage of the retail drug trade, and who have a desire to increase their business beyond the territory within which they are expected to trade, they will sell outside of that limit to those who cannot secure goods from their local wholesaler, and the jobbers with whom they then come in competition will retaliate by selling outside of their limit, and any local arrangement made by local dealers, wholesale and retail, comes to naught under such conditions.

The fact is, the jobber and broker are after the Almighty Dollar and they mean to get it whenever they can. There may be exceptions to this fact, and as local dealers we can say that the Detroit wholesale trade have stood by us for several years in this battle against this class of competition. They now submit to the local Association here, that, having stood by them for about three years and noticing that trade with the cutters is going elsewhere, they cannot stand the drain upon their territory, and so have decided that unless the retail drug trade of Detroit can stop the sale of proprietary goods, etc., to the cutters of Detroit, they will, on October 1, begin to sell the cutters in the city, and so eliminate any protection whatever that we may have had in the past. The conditions imposed upon the retail trade of the city to stop the cutters getting supplies are almost amusing when we consider the fact that the N. W. D. A. and the manufacturers have been working on this problem for years, and even with their great resources and abilities, have failed to accomplish it, if it were not for the fact that it simply adds another link to the chain of doubt that when the retail drug trade are in trouble, neither manufacturers nor jobbers have little consideration for them, as soon as their moneyed interests are in the least affected.

We can now look with certainty that the jobbers of Detroit will sell the cutters located in the State, because they must look upon the State as their territory, and it should come within the same reason as applied to the city, and so any degree of protection from this source is eliminated. This goes to prove conclusively that we should endorse most heartily the proposition of Dr. Mott Pierce, before referred to.

THE CUTTING QUESTION.

This is simply the great question of the retail drug trade at present.

1. Can cutting be stopped? This is very doubtful. Why? Because the manufacturers fully appreciate the large and increased output through department stores, cutters from choice, grocery stores, etc., and they will not willingly put aside this trade for what they consider the inert and indifferent support of the retail drug trade, and there is considerable truth in their criticism of the retail dealers' method of business. The only way it can be reduced is through Dr. Pierce's suggestion, before referred to, and those makers who adopt this plan should be given support, while those who do not should have their goods thrown out entirely, and we should fight them heartily in every way possible with a view to killing off their trade. It can be done, because there was never a more truthful statement than the one made by Dr. Pierce, when he says, "Patent medicines can hardly be sold in a grocery store. It would prejudice their sale and give a better chance for the druggist to sell his own substitution." And that is just what we must do. Force the patent medicine manufacturers who will not support us into the hands of the grocery store people, and then work our own substitutions against them. Do this every day and every hour, and we will see if the proprietor will not begin to recognize that the support which the druggist gives his medicines is not worth something to him. They never would have become the popular remedies that they are now, if we did not support them, and because we do give them this standing, it enables the department store, grocery store, notion house, etc., to simply play price against us to our detriment and loss.

2. New patent medicines or proprietary articles that are being placed upon the market should not be accepted by the legitimate retail drug trade except under agreement with the maker that he will not permit their sale by any except legitimate retail drug dealers and those who maintain prices. Goods should be purchased on this basis, returnable if at any time the agreement is violated. This can be done, as protection in price can be maintained, as it has been by some dealers already, notably in the cases of Parke, Davis & Co., Lazell, Dalley & Co., Solon Palmer and others.

What we must seek to do is this: not to give moral support to any interest, that when we have given strength and standing, will turn upon us and sell their products to any one without care of our interests, as the Cuticura Remedies, Scott's Emulsion, and others have done. Such a plan could be put into operation through the Secretary of the Board of Trade Interests referred to in the first portion of this report.

3. Neither of these conditions above referred to being possible, what are we going to do about it? Sit still and groan and bear it or not? That is the leading question. Well, we have a plan to propose; not a new one and not exactly our own—in fact, an oft-mooted question; one that has been tried with success in some instances, and with failure in others. It simply rests with the pharmacists of this State to decide whether they have enough business acumen, ability, and nerve to carry such a scheme through to success, or are content to remain the same inert, indifferent, careless men as the average manufacturer puts them down as being.

The following suggestion comes from several sources: Mr. H. G. Colman, of Kalamazoo, started the proposed departure and has furnished some valuable material. I have myself devoted considerable time and thought to it, including a visit to Hamilton, Ontario, investi-

gating the Ontario Chemists' Mfg. Company, besides many who have been consulted have all assisted in formulating the remarks we have to offer.

THE CO-OPERATIVE PLAN.

The proposition is simply this: Let us combine together and make our goods, pharmaceutical and special. Let us make manufacturing profits ourselves and reap some of the benefits that others now enjoy through our efforts. Can it be done? Why not? We would need capital. Can we not subscribe it? Facilities. Can we not create them? Expert manufacturers. We can hire them as well as the manufacturers do. Customers for our goods. We have them among ourselves, at little or no expense. Advertising. Can we not take the money and time we now spend advertising, singly, and do it collectively to better advantage and at less expense? Will physicians buy our goods? Why not? If they have confidence in us to dispense their prescriptions, will they not have as much in a class of goods made under our supervision, the contents whereof we know and can conscientiously recommend? It seems to me they must have, and our patrons for non-secret goods, will they not purchase from us our own products as freely as those made by others, and upon which our names appear as manufacturers, when we know nothing of the formulas or the drugs from which they are compounded?

There is no question in the world why a departure of this kind could not be made and conducted in such a manner as to make us individually and collectively a great deal more money, and practically make us independent of the various influences which now surround our business. I believe there are enough among us who will think favorably on this question, and by the signs of the times, see that something must be done to increase our profits, and seeing, will agree to do something. It is well here to note the great prosperity of the manufacturing houses. They are not better pharmacists than many among us, but they are better business men. The jobbing trade also prosper. Each year they tell you that they make no money, groan and look solemn, yet, we never hear of many of them leaving the trade or going out of the business, nor of many failures, and we can rest assured that they are not in the business for recreation solely; so just set this down as a plain common sense fact, there is money in manufacturing, and why not make it this way?

The other day there came under our notice an interesting article regarding a colony of poor weavers in England, who banded together, putting in a few pence each, to purchase in quantity the necessities of life. Starting in this unostentatious manner, to-day their Society numbers several thousand stations, their wealth counts into the millions pounds sterling, and their steam ocean vessels bring them the products of every clime at first cost.

Is there not a lesson in their success for us? Are we not encouraged in this line of departure by precedent? You will find throughout the reports of Pharmaceutical Societies, this class of advice: make more of your own goods. The profit lies in manufacturing, increase the sale of your own products, etc.; or, as in Minnesota, a strong recommendation is made to establish a co-operative laboratory. In fact, it seems almost universal, this feeling, and if we are first in the field, we can reap the benefits and secure many stockholders from other States, and, in fact, sell our goods to dealers elsewhere.

We have a letter and the by-laws of the Ontario Chemists' Manufacturing Co., of Hamilton, an institution founded somewhat on similar ideas, and if you care to learn of the matter, we shall be pleased to read it.

The question of the profits of such an institution seems almost assured. Take one item alone—traveling expense—and, that being eliminated, it is a liberal profit in itself. Besides this, are we not as capable of running a laboratory as any private individual? Very few principals are workers in their own laboratories, almost all the work being performed by men hired for that purpose. Then, again, our margin of profit would be increased naturally, because each individual stockholder, pushing the sale of our goods, must, necessarily, increase the output at small additional expense.

In advertising legitimate pharmaceuticals, no expense is necessary, because we are our own patrons, while this is always a heavy item in individual enterprise. Advertising specialties can be conducted at much less rates through advertising agencies than through individual local papers and all materially benefit thereby. One hears on every side of the large fortunes made by successful specialties. It lies within our province to conduct just such a business as others have done. All we need is men of experience in similar lines, to do equally as well for us.

Economy of manufacture by the retail dealer is always a doubtful question. He rarely considers the cost of his time, which might be better employed in attending his store and watching carefully his customers. Many of the goods he buys are in such small quantities that will not warrant his making them. Besides, crude drugs in small amounts are very questionable in quality, and, generally, much higher in price than when handled in quantity. The loss of alcohol is also a consideration in small manufacturing, to say nothing of uniform products which in small quantity are difficult to obtain, and such tests as should be applied are often too expensive in both time and material to warrant their application to small amounts.

To practically consider this question of manufacturing for ourselves involves a great amount of detail, each feature of which should have careful consideration and such organization be perfected as would give equal rights to all, and injustice to none. The smaller dealers should share equally with the greater, each one proportionately to the amount of his trade. After discussion, should this question be approved, a Committee should be appointed and the matter taken up and systematically handled.

This report is more in the line of a suggestion, yet, to have some data, we have corresponded with a most competent manufacturing pharmacist, one who has had wide experience in several of the best laboratories in the country, and who is competent in every line. He tells us a laboratory for making pharmaceuticals, with engine and boiler, could be equipped for about \$5,000, and the plant increased as time and demand should require. Now, presuming there are 1,600 pharmacists in Michigan, could we induce 500 of them to join such a departure, each purchasing \$100 worth of stock? That would give us a capital of \$50,000, which would equip stock and operate.

1. Each member should hold at least stock certificates for \$100, and he would receive credit for a like amount on the books of the company, stock being held as security for such credit.

2. Each member would be entitled to vote his stock and no more, and no voting by proxy.

3. The laboratory should be conducted by a managing director under the direction of a board of directors.

4. The price of goods to be determined by the board of directors and maintained. Any one cutting prices of goods issued by the Association would be dropped from membership and the stock forfeited to the company.

5. Dividends, if any, to be divided, first, not exceeding 7 per cent. in investment, and any surplus thereafter distributed in dividends, proportionately to purchases made by each individual, of manufactured goods bought and paid for.

The above is only a crude outline of salient points. We have here, as before referred to, the by-laws of the Ontario Chemists' Manufacturing Co., which show the basis of a Canadian institution now in operation and, they report, successfully.

The question of strength in such a combination is, also, a most serious one. During the trip made by your representatives to the East, in the interests of the exhibit, President Parker and myself had the opportunity of talking with quite a number of the leading men in the manufacturing drug line. Each one seemed to express, as a single thought, the necessity of combination, and expressed their wonder that the pharmacists did not complete such an organization. Any one who has read trade papers must be impressed with the constant call for combination, so that it seems almost a vital necessity; but experience has shown that the possibilities of combining the entire retail drug trade of the United States are very doubtful, and while we cannot combine them all together for general protection, is it not quite possible that a few hundred of us can combine in a business departure wherein our mutual interests may be served? The possibility of making money, each for himself, will prove a greater inducement than the mere matter of an Association for general business interests.

Mr. Anderson: Closing that portion of the report, I would say that the report was written a short time ago, but since then I have taken occasion to go to Hamilton, Ont., to look over the plant of the Ontario Chemists' Manufacturing Co. This company was started two years and eight months ago. They issued a certain amount of stock, called for subscriptions, and secured it from the retail drug trade. They started in a very modest way. Last year, the second year of their existence, on the amount of capital paid in, they were enabled to declare an 8 per cent. cash dividend, which was declared out of the profits of the concern, and at the close of this year they will be enabled, from their profits, to purchase a very handsome piece of property near the main streets of Hamilton, and add a brick building 65 feet deep and 35 feet wide, with a very nice enclosure with it - very handsome premises, indeed, for which they will never have to put up an additional dollar. It is done out of the profits. They have done about \$25,000 worth of business. They sell the goods at a reduction of about 25 per cent. on regular rates, and then make money inside of that. The usual \$6 product they sell for \$4.50 and then make a very nice profit. Not one of them has regretted the investment; in fact, they are very much delighted with it. The first issue of stock, \$20,000, was subscribed for, and the next issue was \$10,000, which did not last two weeks, being bought up by the druggists as an investment, as well as to be in-

cluded in the Association. They have about seventy-five members, and the chances are that they will increase. Last year the report of the Committee on Trade Interests brought up the Universal Trade Association matter. This was referred to the Committee for this year. There is here a very voluminous report. I presume that every one here knows the object of this Association. I do not wish to take up all the time of the Association, but if you wish this report read I shall be pleased to read it. What is your pleasure, Mr. President?

President: It would seem to me proper at this time to read that report.

Mr. Anderson thereupon read a report compiled by the officers of the Company, setting forth the condition of its affairs and showing how the plan has progressed in this State and in other States, and the objects thereof.

The following letter was presented by Mr. Anderson, as the subject matter properly came under the head of trade interests:

Cincinnati, Ohio, July 8—On June 25, 1895, a number of retail druggists met at Columbus and adopted articles of incorporation, which have been approved by the Insurance Department, and a Code of Regulations for a Druggists' National Fire Insurance Company, to carry insurance on the property of retail druggists in any city of the United States that may be properly protected by abundant water supply.

The committee having the matter in charge was selected at a recent meeting of the Ohio State Pharmaceutical Association at Sandusky, being composed of the following persons:

G. L. Hechler, Cleveland.

John Weyer, Cincinnati.

R. C. Spohn, Toledo.

M. A. Burkhardt, Dayton.

George Eger, Cincinnati.

To the meeting of this committee a few others were invited and were present, among them R. I. Eads, of Indianapolis; John Rupert, of Cincinnati; F. T. Bower, Toledo, and John Byrne and W. H. Syfert, of Columbus.

The plan now adopted is essentially the same as that set forth in a circular letter sent to the members of Retail Druggists' Fire Insurance Association of Ohio three years ago, and the facts then presented are true to-day, but, perhaps, a little more favorable to such a company, as insurance rates are higher, and cities, especially the smaller ones, are better protected. The incorporators are taking steps to inform the druggists in cities of the proposed company through the journals and are preparing a general circular, to be sent to such as we may desire as subscribers to stock and as policy holders. We believe the druggists of the various states are now ready for such a company, since many efforts have been made in other states to organize and carry into effect companies and associations, with failures generally, because of the difficulties under various state laws and the labor and expense of organization. The capital stock of this company is to be \$200,000, in shares of \$100 each, which will permit us to go into any state and carry anything we may consider good. The stock is all to be taken by druggists, if possible and to be controlled as far as possible by the druggists.

JOHN WEYER.

A motion was made by Mr. Dupont that the report of the Committee on Trade Interests be taken up for discussion, which was carried.

A motion by Mr. Wurzburg that the discussion be dispensed with until afternoon was lost, the President stating that as there were a large number present, it would be unsafe to trust to the attendance in the afternoon.

President: Will the writer of this report favor us with a reading of it section by section?

Mr. Anderson: The first section of this report covers the question of organization, that is, in connection with the Association. The membership should be increased; we should have better attendance at our meetings. That is the substance of that section, in the belief that that is the desirable thing to accomplish. We want members.

Mr. Whitmarsh: It seems to me that the question of more efficient organization should naturally come before all the other questions that occur in the report. It seems to me that this is the foundation of all the future work that is proposed in that report. Unless we can increase our numbers—increase our force—we cannot proceed with these other plans that have been proposed, and it seems to me that it is worth while for us to perfect some plan, to pass some resolution defining some sort of a system by which we can increase the membership during the coming year. A great deal of this work should be done by individual effort. The Secretary might be empowered to send out circulars and to bring all influences to bear, to circulate some statement which will bring the actual facts before the druggists of this State, to bring before them the necessity of combining as members, to get themselves on record in the Association. A great deal of money as dues to help us improve the organization would result, which would be sufficient to carry out the objects spoken of in this report. In protecting ourselves year by year, we have to protect ourselves against a fatality which seems to be universal throughout the country. I noticed last winter there was hardly a State in the Union in which druggists were not attacked, and attacked malignantly, ignorantly and absurdly on the most ridiculous grounds in the world, and we need to organize for that if for nothing else, and I think the druggists will take hold and organize when they see they are in danger. You can say that you can show them something a little better and, when they find that Diana is in danger, I think they will come to the scratch and put down their little dollars and become members of the Association. The point that we want to consider to-day is the best plan to induce them to do so.

President: I would like to hear from Mr. Phillips on the subject. I wish I knew you all by name, so that I could call on you, individually.

Mr. Phillips: I think I have nothing to add in the line of organization. I think it has been pretty thoroughly aired. I am heartily in

sympathy, however, with both united and individual efforts in that direction.

Dr. Ward: I think it is generally conceded to be the sentiment of those present that "In union there is strength," and if we could call out every druggist in the State to our annual meetings, we should be much better prepared to fight our battles when they come, and better prepared to carry out the schemes which have been proposed here. I have often wondered why it is that druggists do not more generally attend the meetings. Last year we had a small attendance. We have a much better attendance this year, and if I may be allowed to make use of an Irish "bull," I will say that I wish all those that are absent were present, that they might give their reasons why they were not here; and I cannot, for the life of me, see why they do not turn out. I think the benefit to be derived at these meetings would greatly outweigh any little inconvenience or trouble it might be to them. I think this is generally conceded to be the sentiment of the organization. The question is, how are we to accomplish this. We have a large membership, but it is not so much the membership as it is the attendance at the meetings that counts.

Mr. Colman: Of course, theoretically, what the gentleman at my left here has said is correct, that organization precedes everything else; but, as a matter of fact, we meet this difficulty year after year, of getting, first, members to join the Association, and, next, of getting them out. The point that we want to accomplish is, to get them more interested, and then we shall have no trouble in increasing and extending our organization. Now, then, if some one will tell us in what way we can interest the druggists, then I will tell you how we can get them to join the Association, and how we can get them here. It seems to me that we have tried hard and faithfully in the past; certainly the Committee this year have done their duty, in sending out invitations and souvenir programs, and everything. I do not know that any more could have been done than has been. I think that, if we will just pass over some of these points, and go directly to the discussion of that recommendation for the correcting of the evil of cut-rates and protecting ourselves against it, perhaps, we can accomplish some new feature which will be an attraction and bring them out in the future, and enable us within a year or two to very greatly increase the organization. We must have something tangible, something positive and real, not mere talk. You remember when we were beginning and wished to get some legislation for our profession, as long as we had some real thing that we were working to accomplish, we had no difficulty about having a large attendance. We had a good attendance in those days, but when it was done and we lapsed down into simply talking, then they began to stay at home. If you will start something now, something as proposed in that report toward the last there, and go to work on it, you will see that the members will beg

to attend the meetings, it seems to me. I move, Mr. President, that the discussion of this section for the present be laid on the table, and that we proceed to consider the recommendation further on.

Supported.

President: You hear the motion of Mr. Colman, which has been seconded. Any remarks?

Mr. Peck: Before adopting that resolution, an idea occurred to me that might be practicable, and it seems to me that we ought to work on the same lines that a mercantile organization would pursue under the same circumstances. We can imagine ourselves to be a company engaged in business for a certain purpose—the disposing of our wares. In this case we are disposing of our knowledge, and we are willing to give what information we have for the benefit of others. The first course that company would adopt would be the organization of a corps of traveling men to acquaint their trade with what they have, and endeavor to obtain the good-will and the business of the parties that they call upon. Now, if we had a committee of about three men to call upon the different druggists of the State, especially in the larger cities, and acquaint them with the objects of this Association, the fees that we collect for initiation and so on of the new members would probably pay the expenses and leave a surplus for your committee. It appears to me that we could gather in a thousand members in a very short time. By employing suitable members who are competent and willing, not for the salary (although they should be paid for their services,) but simply for the good work they could do for this Association, I think the membership could be quadrupled, and we should surprise ourselves with the extent of our prosperity and influence, if a course of that kind were systematically pursued. The expense need not stand in the way, because the collections, I will venture to say, would more than cover the expense of this committee. I simply make that as a suggestion upon the lines of ordinary trade appliances, such as would be adopted by a business concern.

Mr. Anderson: I heartily concur in what Mr. Peck has said. I think, if we want to promote any enterprise, we have to take hold and promote it. I think a good deal of the cause of druggists' staying away is that those who are interested—you see the same faces here every year of those who come to these meetings—do not take enough pains to influence their brother druggists. They should go out and interest them. Suppose you are located in any city or large town away from Detroit, or wherever the meeting happens to be, and you go to work and get up a little company, say six or eight members. Suppose you say, "Here, let us go to Grand Rapids, or let us go to Kalamazoo; let us take two or three days off, and we will have a good meeting. We will enjoy ourselves, associate ourselves together;" and I think good fellowship enters largely into the success of these meetings. If each member will take it upon himself to bring at least one

other, why, you see it will double the attendance right along. In that way you get more people out. Do not wait until the day before you start, but begin two or three weeks ahead. Then there is another point to consider, which is the matter of committees. Now, when committees are appointed, there seems to be a general impression abroad that the committee is honored by appointment, and it too often stops there. They will come into these meetings without having done hardly a thing—hardly made a scratch of the pen. And, too, if there is anything of interest that is going to attract anybody, a program or a resume of it should be in the hands of every druggist in this State a week or two before the meeting comes off, so that he may have a chance to consider it. And we should go at it just as a business house would, advertise the knowledge that we have to give away, the literature which we are going to dispense at these meetings. In that way, as the party looks over the program, he sees that there is going to be something which will interest him, and he will be glad to come down here, or wherever it may be. One of the things that most needs attention is our committee work. When a man is put on a committee, he is not put there as a figurehead. He is not put there to fill a vacancy or anything of that kind. He is placed there to do some actual work. If he cannot or will not do that work, he should come right out and say that he will not do it, and end it right there. Don't let him accept the position, like a dog in the manger, and do nothing, and then when he comes out to the meeting say, "Well, I did not have time," or "We did not get together," or "Somebody else didn't do this," and there it falls flat. What a flat thing it is for people to come a couple of hundred miles, more or less, and when a committee is called upon to report, have a man get up, pull a paper out of his pocket, and say, "I have not had time to do anything," when he has had a year to do it in.

Mr. Prall: I cordially agree with Mr. Peck. I think that Mr. Peck and Mr. Anderson view this subject from different standpoints. Mr. Anderson might have the Detroit druggists here in force, but, so far, I have only seen a couple. From Grand Rapids Mr. Peck tells me there are about six here—there are about sixty-five druggists in Grand Rapids. There are thirty-five in Saginaw, and so far I have only seen one other besides myself. We cannot accomplish anything unless a majority of the druggists are interested. It seems to me that this suggestion of Mr. Peck is the first and earliest thing that can be done to accomplish what we want—sending some one through the State to get them all interested. Of course, we can form a plan here and have something to present to the druggists—some one else present it to them. One of the plans suggested to assist druggists was brought to our notice in Saginaw by a man who did not at all favorably impress me. I subscribed for his journal, but to-day I do not know enough about that plan and I have not heard it favorably spoken of by men interested in the business. We want men whom we know are interested with us,

it seems to me, to go through this State and interest druggists. Nobody is more interested in getting them together than Mr. Peck and Mr. Wurzburg; they are almost always at these meetings; but I myself cannot get the people from Saginaw here. If we could go to them with a plan from this Association which looked feasible, and then ask them to give this Association their support by joining it, it seems to me that is the first thing to be done.

President: This motion is still before the house.

Mr. Walker: I would also endorse the proposition of Mr. Peck. I think it has been our experience here in our city Association, that the best results we have obtained have been exactly in that way—by personal solicitation. It seems to me it would be proper to appoint men to canvass certain parts of the State, and, before doing so, I would suggest that a circular be sent to each one of these men, stating what object we have in view, and also emphasizing the dangers which threaten us. Then, by personal solicitation, you will find that you can increase your membership more than by any other means.

President: Right here I would like to call your attention to a part of the third paragraph of the second section. It seems to me that we are getting away ahead of our business. This report embodies a great many important features, and the only way to get over this is to consider it in a systematic manner. I will just read a part of this, and see if it does not occur to you that consideration of that ought to come right in here, and then dispose of that and go on to the next. "The Committee on Trade Interests should be made a permanent one, with executive authority, consisting of three, five or seven members, representing certain sections of the State, and they should be elected to serve one, two and three years respectively. A paid Secretary should be employed by the Association; meetings to be held at regular intervals each year, say one in two or three months." Now, it seems to me that we ought to dispose of that one way or the other, and then we have something done.

Mr. Colman: I wish to withdraw my motion that we postpone discussion. As we are having a discussion, probably we had better continue it, and I wish to withdraw my motion.

Mr. Prall: To get this before the Association, I move that such a change be made in the by-laws.

The motion was supported and carried without debate.

Mr. Price: I would suggest that we divide the State into different sections, similar to the way they do in Ontario. They have a council there of twelve members, and they are elected by druggists from the different sections. I would suggest that this committee be appointed in that way, not have them from one locality entirely. They can be distributed all over the State.

President: This recommendation implies what you have just mentioned.

Mr. Perry: "The Committee is to consist of three, five or seven." Ought it not to be stated definitely which number it is?

President: A motion to that effect will be in order now.

Mr. Phillips: Before that motion is made, it would be well to settle upon the manner in which they would be appointed; neither the report nor the motion says whether it shall be by the chair or not.

President: That is provided for in the by-laws, which prescribe that the Committee be announced by the presiding officer. Will some one cover the point mentioned by Mr. Perry as to the size of the Committee?

Mr. Eberbach: Seven is none too large. I will make that a motion.

Supported and carried.

Prof. Stevens: I think the question raised a few moments ago is a good one, as to whether we are acting legally or not. I think the motion which was made should have been proposed at this meeting, and left over to the next, according to our constitution and by-laws, because it explicitly states that the Committee shall consist of three members. Now, you propose to change this. It also says that the Committee shall be appointed by the President. Now, if you do this according to the constitution, you must proceed somewhat in this manner: It says that any amendment to these by-laws must be made in writing, and read before the Association at one sitting and left over to a subsequent sitting, when, upon receiving the vote of two-thirds of the members present, it shall be a part of these by-laws. I think we might have it proposed at this meeting, letting it lay over until this afternoon, and it can then be acted upon at the afternoon session.

President: Will somebody give notice of that?

Mr. Colman: I would like to ask right here: We were discussing the matter of organization. Now, it is contemplated to turn this subject of organization over to this Committee on Trade Interests, which we are just providing for.

President: That will be at the pleasure of the Association.

Mr. Colman: You said you thought that came prior to the matter of organization.

President: We were taking up the report, and we were skipping all about, discussing this, that and the other thing, and not discussing any one thing in particular, and I thought it was well to clean up our work as we went along.

Mr. Perry: It has been suggested to me to make a formal statement to be supplementary, and that is, that every member present either agree to get a new member or pledge himself one dollar. That would kind of start the financial system, to open a paper here before the Secretary. I do not know whether it is feasible or not, but I think the suggestion is a good one.

Mr. Prall: It is not so much the money we want as the interest of the members, it seems to me.

President: You have heard the motion as made by Mr. Prall and seconded by Prof. Stevens, that a Committee of seven be appointed by the President as a Committee on Trade Interests. According to our constitution and by-laws, it is necessary for notice to be given of amendments of that sort, and then its final consideration will be taken up at the afternoon meeting. The meeting then adjourned until 2 o'clock p. m.

FOURTH SESSION.

President: What portion of this report do you wish to take up and discuss at this meeting? I believe it was suggested, although I do not think there was a motion to that effect, that we discuss the proposition suggested by Mr. Anderson. We left off with paragraph 3 of section 1, with reference to the Committee on Trade Interests. It is proper that we should take up the motion which was presented this morning and discuss and dispose of it at this meeting. I think we had better dispose of this proposed amendment to the constitution and by-laws in respect to this Committee on Trade Interests, and then we will be through with that. Mr. Prall gave notice of that motion.

Mr. Anderson: I move that the motion be read.

President: It was in accordance with this paragraph, and I will read the paragraph: "That the Committee on Trade Interests should be made a permanent one, with executive authority, consisting of three, five or seven members, representing certain sections of the State, and they should be elected to serve one, two, and three years respectively. A paid Secretary should be employed by the Association; meetings to be held at regular intervals each year, say one in two or three months." He simply embodied that paragraph in his proposed amendment. Do you care to do anything with that?

Mr. Perry: Were they to be appointed or elected?

President: They were to be appointed in the usual way by the President.

Mr. Whitmarsh: Mr. Stevens, I believe, stated that, in order to be legal under our constitution, it would have to be noticed at one meeting, and then referred to the next. Then this would come up now as the original motion to be acted upon. I do not just remember the wording of that.

Mr. Prall: I will second the motion now.

The motion, as noticed at the morning session, and now seconded, was thereupon carried without further debate.

Mr. Anderson: It says here that there shall be a permanent Secretary, and that the expenses of such meetings shall be paid by the Association. That is a question of financial responsibility, so the question comes up, Would the Secretary be from out of the Committee, or would you have a separate Secretary? You see, the work of such a Secretary would be to receive from the different members of the Association such communications as they might have to lay before them. For instance, you come across something in your business that you think requires the attention of this Committee, perhaps. You have to get evidence to that effect and you communicate with that Secretary. Now, it is the Secretary's business to return communications to the different members when he may think necessary. Right here comes up another addition to that question, that you must name how many of this Committee would make a quorum for action. If you have seven members, four ought to make a quorum. You must have a quorum to do business, and that has to come in the regular course of having such a Committee as that appointed.

President: It is my opinion that this Committee would be, perhaps, more competent to select their own Secretary than we would. It is merely an idea of my own.

Dr. Ward: I may be a little obtuse in understanding what is intended by these different motions, or what is intended to be carried out. I think that the constitution provides that there shall be an executive Committee of three members appointed by the chair. Now, Mr. Prall brought up a motion, if I remember aright, that there be an Executive Committee of seven appointed, and the constitution also provides, as I understand it, that where there is any change in the constitution, a motion shall be presented in writing, and shall be voted on either—does it say at the next session, or at the next meeting, of the Association?

President: Allow me to correct you there. This motion of Mr. Prall does not refer to the Executive Committee at all—simply to the Trade Committee. The constitution has been complied with. Mr. Prall gave that notice at the morning session.

Dr. Ward: Does it state there that it shall be voted on at the next session of this body, or at the next meeting?

President: At the next session.

Dr. Ward: Then there is one to be appointed every two years, or are there two to be appointed every year?

Mr. Prall: Seven are to be appointed at once, and then one of them expires every year.

Mr. Anderson: You would be making an odd number; it says one, two and three years. There should be two committeemen appointed for one year, two for two years, and two for three years, and an odd one should be appointed on the—

Dr. Ward: It seems to me that there are a few points to be taken

into consideration there, that ought to be referred to a committee to formulate a plan to carry out the intentions of these suggestions which are made in this report of the Committee on Trade Interests; and, to bring the matter before the Association, I move that a committee be appointed to formulate a plan to change our constitution, in compliance with the suggestions which are made in this report of the Committee, consisting of three members, to be appointed by the chair.

Supported and carried.

President: I will appoint the Committee in just a moment. What is your further pleasure? Next is paragraph 3 of section 2. "No one should belong to the Association who is not actively engaged in the retail drug business. Free discussion is often hampered by the presence of those who have other interests that cannot always harmonize with those of the retail drug trade, and any embarrassment preventing the members speaking their minds on certain points should be removed." What will you do with that?

Mr. Parkill: I am decidedly opposed to that. This Association has never suffered any from the membership of wholesale dealers in this Association. It strikes me that if we are going to do anything, the more people in our ranks the better. We are not going to do it by pruning out some of the very best men in the Association.

Mr. Dupont: The only way we can accomplish anything would be by a complete reorganization. We could not very well expel members who are in good standing. We might as well remain as we are.

Mr. Whitmarsh: I move that that section be passed without action. I do not think there is any particular desire for taking any action at present, and there is more important business ahead for the meeting. And I think it would conflict, probably, with the feelings of a good many when you come to consider it.

The motion was supported and carried.

President: For the Committee of Three, I will name Mr. Perry, Mr. Whitmarsh and Mr. Colman, if they will kindly get together at once and favor us with their report.

Mr. Perry: I think that Mr. Prall or Mr. Peck would either of them be much better than I am. They have been looking into the subject more than I have. I should very much prefer that one of them be substituted.

President: I think we will let it go as it is.

Mr. Perry: I will have to insist, Mr. President; I don't want to serve on that committee.

President: Well, I suppose we will have to accept the inevitable. I will name John E. Peck, of Grand Rapids, then.

President: Section 2 is the next item to discuss. The gist of it is the recommendation of Dr. V. Mott Pierce before the Northwestern Druggists' Association. What do you do with that?

Mr. Parkill: I would like to hear from Mr. Davis on this point.

President: Mr. Davis is called for, and he is pretty thoroughly conversant with all these matters.

Mr. Davis: Although it was defeated, it emanated from V. Mott Pierce, the son of Dr. R. V. Pierce, and was not from R. V. Pierce himself, but it was defeated in the Association as impracticable.

President: What do you do with it here, gentlemen?

Mr. Anderson: Mr. Davis, was that defeated?

Mr. Davis: I think it was.

Mr. Anderson: Wasn't it laid over for the next session?

Mr. Davis: It will probably be laid over again.

Mr. Anderson: At the same time, that doesn't hinder our endorsing it.

Mr. Davis: Oh, not at all.

President: As I understand it, that implied the establishment in different large cities of the country of distributing agencies for proprietary goods?

Mr. Prall: Didn't that imply letting the jobbers go out of business, too? (Laughter).

President: Perhaps it is unnecessary for me to read that. You heard the report this morning and the gist of it is as I have stated. Proprietors would distribute their goods through agencies in the large cities to the retailer.

Mr. Dupont: Would it be reasonable to suppose that the National Wholesale Druggists' Association would endorse such a thing as that, throwing away their business?

President: I am not presuming what the National Wholesale Druggists' Association will do. What do you do with this?

A member: Would it be practicable for the retail druggist to purchase one-quarter and one-sixth dozen lots in that way, and have them come separately?

President: I cannot answer that question, either.

Mr. Anderson: The thing is all right enough to look at it in that light, but I take it that, with the combinations such as the manufacturers of this country are able to form with the distributing agency, they would solve the question of getting the goods to the retailer, if they made up their minds to do it; there is no question about that at all. Of course, it is a matter in which the benefit to the middleman goes. Now, the question is right here, whether we are considering the middlemen, or whether we are considering ourselves. If we are considering ourselves, why, it is our business to endorse what we consider is for our benefit, just the same as the National Wholesale Druggists' Association will turn that thing down because it is not for their advantage to do it. If we are working for our benefit, we want to endorse it; if we are not, we want to throw it out—that is the size of it. You can make up your minds to one thing, that the proprietors and manufacturers of this country are not such chumps as to go into a thing

like that, and not find the means to get the goods to you. That will be taken care of.

Mr. Prall: I would like to see some plan whereby we can obtain the co-operation and friendship of both the manufacturer and the jobber.

Mr. Hayes: The question is, Would that prevent cutting? and that is the sole object of Mr. Mott Pierce's having distributing agents, and as there are many other means of getting the goods, it is a matter of indentifying who supplies them. I know of several cases where retailers have actually supplied cutters with goods, also wholesale supply houses. Even supposing there were distributing agents, would that prevent the evil? I think not.

Mr. Webb: This matter would only apply to this one particular State, wouldn't it? Nothing to hinder cutters sending into Ohio to get their supplies, unless other states saw fit to adopt it?

President: It is not a matter of states' adopting; it is a matter of the proprietors' choosing their own way of placing their goods. They say, We will establish a house in Detroit to supply Michigan—Michigan will go to Detroit for her goods.

Mr. Webb: Then this one warehouse would open up accounts with all the druggists throughout the State?

President: If they saw fit, yes.

A member: The matter of getting the goods to the retailer would amount to a good deal; the manufacturer could hardly continue to pay the express charges on these small amounts.

President: I presume that they will insist on retailers buying at least more than one-twelfth of a dozen. This is a question that affects your pocket-book. If it is impracticable and you do not favor it, why let us reject it and pass on. Is there any further discussion?

Mr. Wurzburg: It seems to me that this should be adopted. If we do not adopt it, we are going to be at the mercy of the jobber, and if we do adopt it, why, we are that much nearer to the manufacturer of proprietary articles.

Dr. Ward: It seems to me a question of interest with the manufacturers. If it is to their interest to adopt it, they will do it, and if it is not to their interest, what good will our endorsement of the plan do?

President: It seems to me that it is not, altogether, a question of interest to the proprietors. The retailers go to them and beseech them to devise some method whereby cutters may be denied the privilege of getting goods, and they come forward and suggest this plan for our benefit. It is a question of protecting us entirely. Perhaps it may not be feasible; perhaps it is.

Mr. Dupont: I look at it as a good sign that one of the large manufacturers of proprietary goods should consider the point at all. Still, I think, eventually, they will distribute their goods as they have through the jobbers, but will require jobbers to protect retailers, if such a thing

is possible. I believe that is the solution. I look at it as a very good beginning that the proprietary goods men should think of the subject at all. I have always maintained that it was in their hands to regulate this matter, and I think they will some day. I do not know how soon that will be.

Mr. Parkill: Why would it not be competent and advisable for us to adopt a resolution simply requesting the Association to adopt some plan by which we would be protected? I must confess I am not conversant with this plan to a sufficient extent to either endorse it or not endorse it. If we can show our appreciation of any effort they would make in our behalf, perhaps it will cover the same ground, and still will not, necessarily, be an endorsement on our part of any plan.

President: If you do not care to reject this proposition, it is perfectly proper for this Association to adopt a resolution which perhaps would partially endorse it.

Mr. Parkill: We might endorse the effort without the form of the plan.

Mr. Davis: A modification of that letter of Mr. Pierce's was in the "Detroit plan," so-called, that was adopted by the National Association, but which was not carried out by the proprietors. That plan was, largely, that all manufacturers of proprietary goods should supply their goods only through the jobbing druggist, and the jobbing druggist had a full list of the cutters, so that it lay then entirely with the wholesale druggist whom they should supply. There were a few manufacturers who were willing to go into that plan, but there was a very large percentage who would not go in; one particularly I have in mind, Mr. Hood, who told me personally, when I was in Lowell talking with him on the subject, that he would not have any one dictate to him how he should run his business; that he would supply whom he pleased, and it didn't make any difference who objected. That was the trouble we got into with a large number of manufacturers. If they would supply the wholesale druggists exclusively, so that the wholesale druggists then could supply only the retail druggists, we could soon stop this business, but we cannot get the manufacturers to work as a unit. There is the whole trouble, and they will not work in good faith, either. This particular plan of Mr. Pierce's is, undoubtedly, a good thing for the retailer, but not for the jobber, unless they would appoint jobbers as their distributing agents, which they may do, but in that case there would be considerable jealousy, as every large city has from two to five, six or seven wholesale dealers, and if one particular house had control of the goods, it would create jealousy on the part of the others. If they had a distributing agent, entirely separate from the wholesale druggist, then the matter of getting goods would be a very serious one. The wholesale dealer is as important a factor to the manufacturer as the retail dealer is to the jobber. We cannot get along without the retailer; the manufacturer cannot get along without

the jobber. Of course, he could appoint his distributing agencies; there is no doubt but that he can sell a certain amount of goods, but the manufacturers are all after that same Almighty Dollar, and they want to sell all the goods they can. Brent Good, who is the proprietor of Carter's pills, stated that he was tickled to death to have a market basketful of his Carter's pills outside of a pawnshop marked 9 cents, and the reason he gave was, that he got \$17 a gross, and he did not care what they retailed for. They sold that many more, and he made his profit just the same. It merely goes to show that the manufacturer is in exactly the same business as the retailer; they are all after money, and they do not care very much how they get it, provided it is in what is supposed to be an honorable method. That "Detroit plan," if it could have been carried out, was, undoubtedly, very nearly a solution of this whole matter; but the manufacturers could not be got together, and they would not work in good faith, even when they promised.

President: In connection with this subject of proprietary medicines, I will take the liberty of calling upon Mr. Davis to enlighten the Association upon what is known as the modified rebate plan, which is of recent origin, I believe.

Mr. Davis: This modified rebate plan I do not think will prevent the cutting of prices at retail. The object of that plan is, particularly, to protect the jobber. The present system is not entirely lived up to by all of the jobbers. It is supposed to be, but is not. There are a few black sheep in the wholesale ranks, I am sorry to say, and although few in numbers and they do not affect the general country throughout, yet the fact that there are a few creates a great deal of feeling. They are trying to adopt a plan that will absolutely protect the jobber, which contemplates that the manufacturers should hold back their ten per cent. rebate, holding same in a clearing house, this money to be paid to the jobber at the end of every three months, provided he signs an iron-clad agreement that he has not broken faith in any way, shape or form, directly or indirectly. If he has broken faith, or there are any disaffections at all, and he is reported as cutting, this money is simply held back, and any accumulations are held back until they assume such an amount that, perhaps, they force the jobber into line. The system does not increase the price to the retailer, but simply holds it as it is to-day. That is to say, Hood's Sarsaparilla will still continue to be sold at \$8 per dozen, so that if a retail druggist or department store buys the goods at \$8 per dozen, he still can continue to sell at 67 cents a bottle if he wants to. I do not see how that particular plan will protect the retailer. At least, that is my version of it.

Mr. Wurzburg: This report of the Committee on Trade Interests is quite a lengthy thing to look after, and I move that we either adopt or reject this section that we have talked about.

President: Which will you have it, Mr. Wurzburg?

Mr. Wurzburg: I move that we adopt it.

Mr. Parkill: This is to adopt the Pierce plan?

President: Yes. Are you ready for the question?

The motion was supported and carried.

President: If there are any gentlemen here who are druggists, I shall be pleased to grant them the privilege of the floor. Please do not understand that this meeting is restricted to members of the Michigan State Pharmaceutical Association. We would like to hear from any retail druggist who has any idea on the subject, whether from this State or any other state. The next thing of importance in this report is that pertaining to the question of manufacturing our own goods, and the report is rather voluminous. I think it would be proper to refer that to a sub-committee to report on later. If any one wishes to know anything about the ins and outs of the institution in Canada, the committee will be pleased to enlighten him on that or any other question on which he may desire to be informed. What is your pleasure?

Mr. Dupont: I move that this report be referred to a sub-committee, appointed by the chair, consisting of five members, to report on later.

The motion was supported and carried.

President: I will name Mr. Phillips, of Armada; Mr. Todd, of Detroit; Dr. Ward, of St. Clair; Mr. Wurzburg, of Grand Rapids, and Mr. Webb, of Jackson. We will now listen to the report of the Secretary of the Board of Pharmacy, which should have been made yesterday.

Mr. Parkill: The report consists of the proceedings of the Board for the year, with a list of the registration in the State complete as it is at the present time, with a copy of the by-laws under which the Board acts, with the rulings that have been adopted from time to time, and also with a complete set of all proceedings of the Board, the names of all students who have presented themselves for examination, and with the percentage of each one. Possibly a brief summary of it may be of some interest to you.

SECRETARY'S REPORT.

I have the honor to submit the following report of the Michigan Board of Pharmacy for the year ending with the July meeting, 1895.

I wish to call your attention particularly to the fact that the experience ruling, adopted by the Board, has resulted in a decreased number of applicants for examination, and that a gradual increase in the requirements at the examinations has not decreased the number of candidates receiving certificates, showing that the time has arrived when students are prepared for more strict examinations.

The prosecution of violators of the Pharmacy law has been carried on with vigor, resulting in a large increase in the number of convictions and the amount of fines paid.

The recommendation of the State Association, adopted at its last annual meeting, that candidates be required to possess a knowledge of English equal to at least a grammar school education, was at once adopted by the Board, and its wide publication has had a salutary effect on applicants, as evinced by the character of the papers at the examinations.

TREASURER'S REPORT.

RECEIPTS.

Cash on hand July 7, 1894	\$3,049 08
Received from S. E. Parkill, Sec'y, Jan. 7, 1895.....	2,500 00
Received from S. E. Parkill, Sec'y, June 27, 1896.....	1,282 00
Total receipts.....	\$6,781 08

DISBURSEMENTS.

Vouchers No. 500 to 591 inclusive	\$4,808 07
Cash on hand.....	1,973 81
	<u>\$6,781 88</u>

On motion, duly seconded, the report was accepted and approved.

A member: I would call attention to the lack of prosecutions on the part of prosecuting attorneys. If we have laws in this State, we ought to find some way of enforcing them. If prosecuting attorneys will not prosecute cases, I think something ought to be done with them. I do not know just where we must look for that but something ought to be done.

Mr. Parkill: I did not hear Mr. Vernor's report, and I do not know whether he talked upon that or not. We have an amendment already framed, which, if we can ever find a good time, we will introduce, which will make our attorney practically an officer of the State, so that he can enter complaints and so on. These complaints, of course, are just; the suits are brought at an expense, and ought to be prosecuted. Our attorney gets his evidence, goes to the prosecuting attorney, and if the latter sees fit, he will issue a warrant; the case goes to trial and the matter is practically out of our hands. The prosecuting attorney looks upon this as rather a small thing, anyway. Sometimes our attorney will go in with something which is a violation of the law--no matter what, as long as it is a violation--but, if the party happens to be a local friend of the prosecutor, it is very hard work to get him to act vigorously. In one case, the prosecuting attorney refused to issue a warrant. There was some cause for his not attempting it, as we had been trying cases in the circuit court in that county, in which the judge had ruled against us so often that the prosecuting attorney stated there was no earthly use of trying any more cases until we saw how some of the cases came out which were pending. Possibly he may see fit to take them up and push them later; but there was so much on deck at Lansing last winter, and we seemingly had such a hard struggle to keep our statu quo there, that we did not think it advisable to go there and push any large number of amendments to the law. We thought that if we could get out without being mutilated, we ought to be contented with that, and so far as I am concerned, I am very glad that we did get out as well as we did. Dr. Richardson, of Monroe, was one of the fiercest opponents of our law in the Legislature. He came to have a conference with me and wanted to know what would be satisfactory. I gave him the amendments, com-

prising just what we wanted, and he promised to introduce a bill, and that before doing so he would have me confer with him. I never heard of him any more and he did not introduce the bill. So nothing came of it and I did not think it was well to push the matter with anybody else.

President: Any further remarks? We will now take up the reports of delegates from other Associations. We have with us to-day a delegate sent here by the Ohio State Pharmaceutical Association, and I shall be pleased to hear from him—Mr. Bower, of Toledo.

Mr. Bower: I hardly expected to be called upon just at this juncture. I was rather waiting until all the matters that were under consideration—especially these special matters in the report of the Committee on Trade Interests—were duly considered, and until the time came that I would be allowed to say a few words, so that I could give what I knew to be the sentiment of the druggists of Ohio, especially the members of the Ohio State Pharmaceutical Association. As I understand it, there are several other matters to be considered before leaving the report of the Committee on Trade Interests, and when the time comes I should be pleased to have an opportunity to say a few words, and to give the members of the Association here and others present an idea of what the druggists and members of the Ohio State Pharmaceutical Association think on these important matters. Therefore, if you will excuse me just now, I will be pleased a little later on to join in any discussion of those questions.

President: I simply called upon Mr. Bower at this time, thinking that the committees were not ready to report, and as I understood that he intended leaving, and, as I was very anxious to hear from him before he left; but I think we can excuse him.

Mr. Bower: Mr. President, usually when I start out to do any business, I stay with it until the business is done, and then think about going home (Applause).

President: Is the committee of three ready to report?

Mr. Peck: I think Mr. Whitmarsh has the report.

President: We will listen to the report of the special committee appointed to consider the matter in connection with the resolution affecting the Committee on Trade Interests. The Chairman has requested me to read this, as follows:

Whereas—The Association has voted to amend Section 1 of Article 6 of the by-laws, providing for the re-organization of the Committee on Trade Interests, to consist of seven members, the same to be a permanent committee; therefore

Resolved—That the President appoint said members for one year, two years and three years consecutively; three to be appointed for one year, two for two years, and two for three years; that said Committee shall have power each year to appoint one of its members Secretary. The Committee shall be selected from druggists in different parts of the State, and shall hold meetings at which four shall be a quorum, not oftener than quarterly. The actual expense of such meetings shall be

paid by the Association. At such meetings they shall receive and act on all communications of general interest, and report conclusions thereon at the annual meeting of the Association.

Mr. Perry: Is it provided there how they shall be reappointed when their first term expires?

President: At the end of the first year three would fall out. Then three would be appointed for three years, would they not?

Mr. Whitmarsh: I would state that the committee was in such a hurry that they could hardly fix that right, but it was intended that each member should be a three year member after the appointment began, as I understand it, although the report of the Committee on Trade Interests did not specify that; but it seems to me that that is what was intended. "And that all shall hold their office after the first year, for a period of three years," I think should be mentioned.

Mr. Walker: It says that the deficiency shall be supplied by the appointment of druggists. I think that should read, "The deficiency should be supplied by the appointment of retail druggists," or it should be "members of the Association," one or the other. The membership of our Association does not consist entirely of druggists or of retail druggists. I say it should either define the kind of druggist, or it should be "members."

President: That seems to be a good suggestion. Would you move that that be inserted?

Mr. Walker: Yes. I move that the word "members" be supplied for the word druggists.

Mr. Whitmarsh: Our Committee will accept that without any motion.

A member: I would suggest "by retail druggists." That is for the benefit of retail dealers, and I do not see why any wholesalers should mix up in it at all.

President: That might seem more consistent with the spirit of the whole thing. Cannot you make that "retail druggists," Mr. Walker?

Mr. Walker: It is immaterial to me, only it seemed to me it should be defined in some way.

President: If you will make it "retail druggists," you do define it.

Mr. Walker: Yes, certainly, and as this committee would be appointed to look after the interests almost exclusively of the retail trade, perhaps the words "retail druggists" would be better than "members." I will change my motion to that effect.

Mr. Parkill: I hope that will not be changed. Mr. Bassett has done as much work in this line as any one else, and Mr. Bassett is not a retail druggist now, not actively engaged in it. You contemplate appointing men who shall go around and solicit. It may be advisable to appoint men on the committee who are not bound down to their own business.

President: I think Mr. Bassett would be considered a retail druggist.

Mr. Parkill: I do not see any need of substituting particularly.

Mr. Prall: In that line there is our Secretary, Mr. Thompson; he is not a retail druggist, and we will want just such men for that sort of work. It seems to me "members" would be a better word.

A member: I do not think we have a right to rule any man out who is a member of the Association.

President: Then you will have to eliminate the word "druggists" and insert the word "members." There is a motion before the house, but it has not been supported; so you can either eliminate the word "druggists" and insert the word "members," or you can leave it as it is. What do you do with this report?

Mr. Parkill: I move to change that word druggists to "members" then, Mr. President.

The motion was supported and carried.

President: Now we come to the adoption of the report. What do you do with the report?

A motion was made that the report, as amended, be adopted, which was supported and duly carried.

President: What is your further pleasure?

Mr. Parkill: Cannot we go on with the next section of the report?

President: That, virtually, Mr. Parkill, is all there is left to the report, the section that is under consideration now by the Committee. Is there anything before the meeting at this time?

Mr. Mann: I do not know whether it would be in order or not to bring up the question I have in mind, but there seems to be some conflict as to whether we should be an Association of retail druggists, or a Michigan State Pharmaceutical Association. I believe this is a pretty good time to hear an expression of the members on that point. I believe it would be better for us if we could transform ourselves into an association of retail druggists absolutely. We are retail druggists, and are looking out for our interests. Our interests are not always the interests of the jobbers, and I believe we could accomplish much more with a good strong organization of retail druggists than we can ever accomplish with the Michigan State Pharmaceutical Association. It is very plain that little or nothing has ever been accomplished. I would like to hear an expression from some of the older members here on that question.

President: It would seem to me that this is the proper time for the Association to get on record. We have time now, and I wish some of the members would speak their views on this subject. The proceedings of the Association will show discussion on this subject when the Association was organized, and the thing was fixed up as it is now when we were incorporated. The Association is not confined to the consideration of the cutting of prices altogether. It has other interests as well as this. I should object to any narrowing of the points very much. As far as the wholesaler is concerned, as we have six hundred

members, we are nearly 100 to 1 when it comes to a matter of voting, as against the wholesaler. It does not cut any very great figure. I do not think anything is to be gained by narrowing our membership. Is there any further discussion on this subject?

Mr. Mann: I would like to say, in defense of myself, that I am not trying to belittle the scientific part of the work of this Association; that is all very good, but we, as business men, are trying to look out for our financial interests. We are not governed entirely by our knowledge to be gained in a scientific way. It is dollars and cents. I will admit that there has been lots of good work done in that line, but that does not help our pocket books any. I think that there are lots of members who perhaps have avoided these Association meetings sometimes, because they felt that there was too much of that kind of work, and too little actual business.

President: Any one else any views?

Mr. Walker: I am in favor of leaving the matter just exactly as it is. I believe as Mr. Parkill does. I am sure the interest the others take in our meetings has done us good, and, so far as the jobber is concerned, I do not believe that he is inimical to our interests but that he helps to promote them. I do not think he has ever done us any harm. I should be very sorry indeed to have a great many of our most prominent members dropped out of this Association because they are not retail druggists.

President: Personally, I do not think that we can afford to restrict our Association to people in our narrow line of business. I think it is well to reach out just as far as is consistent with common sense. I can accept what Mr. Parkill has said as embodying my feelings in the matter.

Mr. Colman: I would like to say just a word on this subject. I have always been associated pretty much with the trade interest end of the Association, but I want to put myself on record as being in full sympathy with the scientific part of it, also, and I should be very slow indeed to permit anything to be done, which I could prevent, which would interfere at all with those members who have given our Association such high standing as a scientific association, as well as a trade interest association. I know that a good many of them feel that we must do something which amounts to something in dollars and cents. That is all right and we hope to do it, but the Association, as an association, cannot do very much of that. If we act on the recommendations of the Trade Interests Committee, it virtually proposes that another association, a stock company, not the Michigan State Pharmaceutical Association, but a stock company, organized under the statutes of the State of Michigan, be formed, into which just as many of us can go as wish to. In that we can work for trade interests alone. We do not want to hamper the Michigan State Pharmaceutical Asso-

ciation in any way, nor limit its membership, it seems to me, to any less than what it already is.

President: Mr. Girling, of New Orleans, I think, wishes to say a few words. We shall be pleased to hear him.

Mr. Girling: I would like to say a few words on the patent medicine question, which has been of great interest to me for many years; in fact, I have been fighting the patent medicine in every way, shape and form. I listened with great interest to the report of your Committee on Trade Interests and approved very highly of the plan for manufacturing medicines among yourselves, which will in no way have the secret character, as I understand it. That part of the report which refers to the U. T. A. is of quite a different character. It simply means protection for the patent medicine manufacturer. Now we, as pharmacists—I speak to you as if I were speaking to the Louisiana members—have it in our power to discourage the use of patent medicines, even at full prices. We, as pharmacists, are perfectly capable of putting up medicines in proper form, according to the Pharmacopoeia, which should be used by physicians in the treatment of disease; and, as Professor Prescott put it yesterday, we are all battling against disease—that is our business. We are the servants of the public, and we should supply them with pure and good drugs only. If we sell a patent medicine to a man, we are simply selling him something of which we know nothing. We hand it out to him; he asks if it is good, and, if we are conscientious, we cannot say that it is. The most we can say is, "I know nothing about it." As I regard it, we will say to that customer, "Go to a physician." The physician will give him a prescription, and, if he is a physician properly educated, the man will bring it back to the druggist to be filled. Is that not far more to our interests, and the interests of the public, than handing out a patent medicine to him? At our annual meeting, May 14, 15, 16 and 17, the stand was taken that we should not sell patent medicines where we could possibly avoid it. A law was framed and referred to the Committee on Legislation, of which I can give you the gist. In the first place, all medicines or preparations for the cure of disease, whether in animals or man, should be sold only by registered pharmacists; that nothing in the shape of a medicine should be sold outside of a registered pharmacy, unless in country places where there are no pharmacists in business. In those cases, the storekeepers would be allowed to sell standard medicines only, prepared according to the U. S. Pharmacopoeia. In such cases, the standard medicines should be sold only in original bottles, bearing the label of some registered pharmacist. When those medicines were recommended for the cure of any disease in man or animals, prepared according to the U. S. Pharmacopoeia, with a recommendation on the label, they should state that they were made according to the U. S. Pharmacopoeia, or, if made according to some foreign Pharmacopoeia, according to which one.

In that case, no patent medicines could be sold in the country except in a pharmacy. The next proviso was that all packages containing patent medicines should bear the correct formula on the container, in the English language, of enough of the remedy to exactly fill that bottle, and no more; also that the formula should occupy not less than one-fifth of the label. It is generally required that poisons shall have a death's-head and crossbones on the label, and also that it should occupy not less than one-fifth of the label. A consequence is, that when a physician or any one else buys a patent medicine, he would be able to read the formula, if it was merely worthless trash. The patient would have the opportunity of copying that formula, of referring it to the physician and asking if it was good for anything, and, if the physician approved of it, could take it to the retail druggist and have it put up at about one-half the price, and know that he really got what was prescribed. The law provided that for each and every violation thereof a fine of \$50 should be imposed for each and every package exposed for sale, and that the Board of Health or the Board of Pharmacy, either of the bodies, should take cognizance of the fact, and enter prosecution before the District Attorney; that one-third of the fees should go to the informer, one-third to the Board of Health, and one-third to the state, so that they would keep up a pretty good police espionage over the patent medicine business. Nothing, however, in the law, was to prevent the sale of patent medicines for export. They may export them just as long as they like, but they cannot bring them back into the country, unless they have the formula on the label. Nothing should prevent the sale of patent medicines, either for export or to purely registered pharmacists. In that way it is hoped that we will, in some way, either modify or, perhaps, kill the patent medicine entirely. As I regard it, and as it is regarded by the Louisiana Pharmaceutical Association, of which I was one of the original members, and at one time President, the patent medicine has been a bugbear in our business for a long time. With us, they did not begin cutting until about two years ago. This U. T. A. plan, of which I heard this morning, is a very good plan indeed for protecting the patent medicine man, and, probably, would enable him to get full prices, but why should we content ourselves with that? Why should we try to do all we can to protect his interests, when, if we work as pharmacists, if we employ our entire time in putting up good preparations, bringing them before the medical fraternity, in accordance with the U. S. Pharmacopoeia, would it not be far more to our benefit, to the benefit of the public, and to the benefit of the physician, to sell such preparations than to sell any patent medicine at all? What need is there of patent medicines? I think none. If a man gets sick, let him go to a physician; the physician will give him a prescription for some preparation in the Pharmacopoeia; then let him have it dispensed properly. Some people will say, "Oh, the patent medicine man has a vested

right." Now, suppose we have vested rights. Suppose we charter a ship and go out to some of these yellow fever ports south of New Orleans—we have plenty of them—because these men have chartered the ship and have vested rights in her cargo, do you think that is any reason why they should be allowed to come to New Orleans and give us the slow fever? No. Then why should we be allowed to sell patent medicines to injure the public health? Is it not just as much the duty of the Government to protect the public against patent medicines, or against medicines the composition of which is not known, and which are likely to injure them, as to protect them against yellow fever, smallpox, etc.? They are just as likely to be injurious to the public health, every bit. How many deaths can be traced to patent medicines, among people who swallow them, who probably die by thousands, and we hear nothing about it, where, perhaps, if they had been properly treated, their lives might have been saved. I should be very much pleased to send any gentleman a draft of that law when I get back to New Orleans. I sent a copy of this bill as adopted by the Louisiana Pharmaceutical Association to the New York Pharmaceutical Association, and I have reason to believe it was adopted by them. I also sent a copy to the San Francisco Association. I think it our duty to fight the patent medicine in every way, shape and form. It is true there is an immense amount of capital against us, but if you, the Michigan Pharmaceutical Association, get every progressive pharmacist into the Association, and you fight it out on those lines; if you bring it before the members of your Legislature, they will be compelled, sooner or later, to adopt your views on the subject. It would be well for this Association, as well as other associations, to bring the matter before the American Pharmaceutical Association at their next meeting in Denver, Col. If some such idea could be adopted, the American Pharmaceutical Association might induce Congress to pass laws having the same idea added to their national laws, against which there would be no possibility of any state conflictions. No state could conflict with any other in opposition.

President: We will now listen to the report of the special Committee.

Dr. Ward: The Committee, on so much of the report of the Committee on Trade Interests as relates to the manufacture of preparations on a co-operative plan, having hastily considered the same, beg to report that they see no reason why some such plan should not be adopted, and so recommend. We would also recommend that the details of the plan be referred to the Committee on Trade Interests.

President: You hear the report of the Committee. What do you do with it?

Mr Dupont: I move its adoption.

The motion was supported and carried.

President: That leaves us about where we were when we started discussing this same question.

Mr. Anderson: I do not so understand that. I understand that this Committee has reported and made a recommendation advising the President to appoint a Committee on Trade Interests, and, naturally, to take this matter up and arrange the details.

President: I understand that to be true, but that is for future action; but aren't we now out for the discussion of the question in general?

Mr. Anderson: I think we have finished the discussion on the report.

President: I did not so understand it. I think the question is before the house for discussion on its general merits. I would like to hear from any one who has anything to say.

A member: As I understand it, this Committee could not recommend anything in the nature of forming this co-operative plan; it is outside of the Michigan State Pharmaceutical Association. That will be started, if it ever is at all, as an entirely separate co-operative institution?

President: Yes, sir. A Committee was appointed to formulate a plan. They have gotten together and they advise us that the work be turned over to the permanent Committee on Trade Interests, as they will, probably, have time and better facilities for doing it than this Committee would have in the brief time at their disposal.

Mr. Walker: Now, the way I look on this matter is, that this subject is well worthy of investigation, to say the least, but, to make it practical, some definite policy has to be laid down and that policy strictly followed through. If this corporation is to start out with the idea of manufacturing proprietary preparations, it should stick to that special line of business exclusively. If their idea is to manufacture pharmaceuticals, they have to stick to that exclusively. There is no use of this trying to ride two horses; it is simply out of the question. For my part, I can hardly understand, so long as this is to be a corporation under the laws of the state, and entirely out of the Pharmaceutical Association, how we can give it any endorsement, any more than we could give an endorsement to any other manufacturing concern. It is a subject that, perhaps, it is all right to bring up at this meeting and discuss, but how the Association can give it any endorsement, especially if the policy of this corporation is to manufacture proprietary goods, I cannot understand. There are, of course, men here better able to judge than myself, but I will say that if the policy of the corporation is to manufacture proprietary goods, I, for one, would oppose it. I do not mean by that that I would oppose the corporation at all, but I should oppose the Michigan State Pharmaceutical Association's endorsing any corporation that is manufacturing proprietary goods. If it started out with the policy of manufacturing

pharmaceuticals exclusively, and if we decided it would be perfectly right for us to endorse any incorporated company outside of our Association, why, I would endorse that heartily.

President: I do not think that this Association could do other than give it their moral support, perhaps, and their individual support if they saw fit. Has any one else any ideas?

Mr. Parkill: Is there anything particular to be talked about--any particular point that one is to direct his remarks to?

President: Only in general, I believe.

Mr. Parkill: There is one other question which I am somewhat interested in. Of course, we are all engaged in an endeavor to get things regulated to suit our business. That is one thing that we want to do, and, of course, that is commendable, and anything that gives us any pointers of advantage or gives any promise of success is worthy of our consideration. So far as I am concerned, personally, I am very glad to have this discussion of this patent medicine question, and I listen as intelligently as I can to the plans proposed to regulate this cutting evil. My personal opinion is, however, that all our resolutions have not amounted to much. The patent medicine business is simply a matter of commerce, just as spices are a matter of commerce, very largely in the hands of dealers. If we can regulate it, I will be mighty glad to have it regulated. I am willing to do anything I can, only I am afraid we will not accomplish very much. I want to bring forward another little matter, not that I think that any action of this Association would have any effect on my business or on yours, but simply with the idea that perhaps some one who is here may be able to tell me what I can do to help me out of my difficulty in the matter. The gentleman from New Orleans was speaking about the patent medicine business, and sending a man to the physician to get a prescription, and the physician sending him back to the druggist. Without any discourtesy to the gentleman, whose remarks were very interesting to me, I would say that we have sent men out of our store to the physician to get their prescription written, and the men never came back. That brings up a matter for discussion that strikes me as being as pertinent as anything. I presume that two-thirds of the druggists in this house used to put up a great many prescriptions where now they put up hardly any. If any of you gentlemen here who are druggists—and there is a good representation of intelligent, broad retailers, who are combating energetically any point that seems opposed to their interests—can tell me of any way in which I can meet the physicians' supply house, and keep my physicians' trade, or get back their prescriptions, I will be only too glad to have him do it.

Mr. Main: I am well aware that, possibly, in large towns this cut-rate business is a great curse to the retail druggist, but when you come into the country where we have but few stores in a town, the retail cutting business does not amount to anything to us. I have been won-

dering why, in the report of this Committee, this matter was not brought up. I can remember, not very long ago, when these supply house agents would come into town, they would come and see the druggist first and talk the matter over, but they have got so that we do not see anything of them now. They merely meet our physicians, privately, and leave the town. About a week after, you go along by their houses and, perhaps, you will see labels so-and-so from some house in Chicago. I do not know whether you have any in Detroit or not. This is the greatest thing we have to contend with in the small towns—how we are going to get rid of this part of the trade. In my place, we hardly get a physician's prescription once a week, and then it will be some horse powder from some outside man, possibly. If we could devise some scheme for the retail druggist out in the country places to do away with this plan of business, it would be a great deal more of a blessing than to talk about this cut-rate business. One or two prescriptions, I think, are worth four or five bottles of patent medicine to us, and if some means could be devised by which we could do away with this branch of trade, it would help us in the smaller towns wonderfully.

Mr. Colman: The last two gentlemen on the floor have struck very important subjects, which I think the Committee on Trade Interests had no intention of ignoring. The subjects of patent medicine cutting and physicians' supply houses have been with us for several years, brought up and discussed, and cussed, and all that sort of thing, year after year. It is scarcely necessary to say, either, that we have not made very much progress with these subjects. You will notice, if you are careful as to the wording of that report, that it proposes that a company be formed for the manufacturing of specialties. I think it says, "and pharmaceuticals." Isn't that it, Mr. Chairman? Yes. Specialties and pharmaceuticals, that covers both of those; that is, the manufacturing of specialties, which means proprietary medicines or something akin to them to take the place of the others, and the pharmaceuticals. Now, perhaps you do not just see how that is expected to do anything in this last trouble. Let me discuss first the other part: I was one of the first, at least, who proposed this matter of co-operation, in casting about for some plan to protect the druggists against the evil of cut rates. I conceived the idea of the druggist himself becoming a patent medicine manufacturer by organizing a large co-operative stock company, in which the stockholders would be retail druggists. Not for the purpose of making more money out of patent medicines—that was a secondary idea in my mind entirely—but for the purpose of having something which would be entirely within his control from start to finish, and in which he could protect himself against the price on the articles being cut. That was the idea I had in mind, and about the only idea. I communicated with several other gentlemen and Mr. Anderson took the idea up and carried it further.

He said, "If co-operation is good in that way it is good almost anywhere." He conceived the idea of manufacturing pharmaceuticals and in fact anything which we might sell; and as I thought of it later on I thought that perhaps this second idea was after all the more valuable one and the one which ought to be acted on first. There may be a difference of opinion between us here. It is a question which ought to be considered very carefully as to which branch of manufacturing should be taken up first, whether it should be the manufacture of pharmaceuticals or the manufacture of proprietary medicines. I am inclined to think we had better not undertake to tackle both of them at the same time and that we had better determine pretty carefully which one we will take first. Suppose that we take the manufacture of pharmaceuticals, fluid extracts, tablets, elixirs and all those things and the druggists go into that association. All that is made on it after paying the salaries and expenses belongs to that association. We would furnish the goods to the druggist at perhaps less than he has been paying and if there is any profit on the sales he in the end is to get his share of that profit. If we are able to furnish those goods to him at less than he has been paying before; if we are able to furnish them to him for less than the physicians' supply houses can furnish them to the physician we put him at once at a decided advantage. He has as good goods manufactured by a reliable concern for less than he has been paying before. He can if he choose go right to his own physician and say, "Here, I want your trade. I will furnish you these goods so-and-so—these fluid extracts, elixirs and tablets at such a price—which will be less than the physicians' supply house has been giving that physician. Still he makes a profit on it and it gives him that advantage. We might go even further than that because there are some druggists who even then, as we all know, would not take care of themselves. They would not go to the physician and talk up to him—that is the trouble. The druggists will not take measures to guard against the supply houses coming in and taking trade that belongs to them. I suppose if we were to go over the ground at least a couple of times a year; have a good man go over the ground and show these preparations to the physician, leave samples with him perhaps and convince him that they are good goods and then say, "I want to take your order and turn it over to your druggist right here in town;" if we were to give the druggist that sort of a start, introducing the goods to the physician, I think the most of them could then take care of themselves. If they could not they would not deserve to be looked after any longer, it seems to me.

Mr. Parkill: That is not entirely the trouble. If the physicians' supply house comes in and sells Lactopeptine to the physician at \$8 a dozen, I cannot do it unless I can buy the quantity. I cannot buy the quantity unless I sell just as many physicians as he does and become myself a physicians' supply house. I cannot see how energy on my part is going to overcome that.

Mr. Colman: You cannot do it but this Association that we contemplate can buy in large quantities and turn it over to you at cost. We can put you where you cannot put yourself.

Mr. Parkill: Yes, you can on those particular preparations.

Mr. Colman: In other words the Association would put you in the position of a member of a large manufacturing concern, with all the advantages which you never can have as an ordinary druggist. That is just the point.

Mr. Mann: Where is your prescription business then?

Mr. Colman: Of course, you cannot coerce a physician into writing prescriptions by anything that you can do. The least we can hope to do is to furnish the physician the medicines which he uses and keep him from buying those from supply houses. The trouble is the physician has not only ceased writing prescriptions but he has ceased coming to our stores and buying the articles which he dispenses. He sends out of town and gets them. This latter evil we can correct but we cannot make him write prescriptions—there is no use talking about that.

Dr. Ward: There is another question: Haven't they ceased paying for them sometimes?

Mr. Colman: Of course, a physician who is poor pay and will not pay us possibly will not buy goods outside; or if he does, if they can get some twist on him which we cannot get, we cannot help that.

Dr. Ward: If a physician does not pay, the supply houses cut him off the list and they can supply some other physician who is good pay; but, right in the town where your physician is, what are you going to do then?

Mr. Colman: This physician who you say is good pay whom they are going to get in the place of the man who is poor pay we do not propose to let them have.

Mr. Anderson: Could you devise a plan by which a man could practically do business without an effort himself, with protection against all these evils, and have everything perfectly lovely?

Mr. Colman: That is a pertinent question. I answered that, Mr. Anderson, a minute ago when I stated that we would have to help some druggists to the extent of going to their town twice a year, sending a competent salesman there, showing the physician the kinds of goods which we have and taking orders to be filled through the druggists, and stated that even then there would be some druggists after all who would sit right down and do absolutely nothing. We cannot do anything for those fellows, of course not. The object of this whole thing is to help the man who helps himself, of course. We are not talking about the inefficient fellow who wants to be everlastingly boosted, who sits down and cries because he can't climb up somewhere when he does not make any effort.

Mr. Todd: Mr. Parkill spoke about the Lactopeptine, asserting

that you could buy the Lactopeptine in quantity and sell it to him at cost. I do not quite see how you are going to do that and pay the expenses of this co-operative concern and come out with a dividend at the end of the year.

Mr. Colman: That is very true. If we had too many things like Lactopeptine we could not do it unless we went to work and manufactured them. If we manufactured a lactated pepsin or something else which was just as good we would then be all right.

Mr. Anderson: I believe it was a retail druggist with a capital of about \$200 invested who started Antikamnia. If we expect that anybody is going to formulate plans for us, carry on our business for us and tell us how to get over every difficulty which presents itself we are expecting a good deal. That would be a very nice thing, but I don't think it will ever come.

A Member: Like brother Main, from Tekonsha, I am from a small place—probably not as large as Tekonsha—but I have to contend with the county seat of our county, which is only twelve miles away from us, and in regard to this manufacturing interest this question arises, in the supplying of these pharmaceuticals and preparations to the druggist: If I have \$500 to put into a line of pharmaceuticals, I can get a discount of 40 per cent. from Parke, Davis & Co., so that I can buy my drugs at 60 cents on the dollar. If I cannot do that, I must pay 75 cents. A prescription came into my store the other day which the man said he could get at Adrian for 90 cents. It contained 10 fluid ounces of fluid extracts, ranging in price from 90 cents to \$1.80, list. I had to compete, on the basis of the price I had been buying at, with this man in Adrian, who, perhaps, bought the quantity to get the 60 cent rate. It would seem to me that if some plan could be formulated whereby we people who live in the smaller towns could be protected from that rebate business, it would be a good thing.

Mr. Peck: There has been very little said about local organization during this discussion. I am a firm believer in local organization. I believe that evils can be combated by local organization better than in almost any other manner. When druggists are willing to sell their proprietary medicines at the same price as may be adopted by their organization, the department store and the local cutter are of but little effect; in fact, cut but a small figure. In Grand Rapids we have a very strong local organization. Every retail druggist, with one exception, is a member. The one exception is a cutter, but we have called upon him and he has consented to refrain from advertising cut prices, but insists upon selling goods below regular prices. That being the case, we move right along in the even tenor of our way, and I guess we are all doing fairly well, although there is a department store which cuts prices. All things considered, however, the cutting evil does not affect us very much. In Detroit, however, the conditions are different, as the druggists seem to be cutting against each other.

I think it is very unwise for them to take that course, because if they would hold together they would preserve the balance of trade they have lost. That is, they would make the difference in profit between the price they would have obtained and the price they have obtained. I think that, in Jackson and other cities where it is needed, local organization ought to be effected thoroughly, and I think it ought to be emphasized as the sentiment of this Association that local organization is one of the most powerful remedies we can employ in combating this evil.

Mr. Phillips: I think Mr. Peck's remarks very pertinent and I endorse them. There was one remark made that, perhaps, was unintentional, but which I think ought not to pass, because it is right in line with the subject of prescriptions. That was, that one prescription was worth more than half a dozen sales of patent medicines. If it is half a dozen bottles of Hood's Sarsaparilla sold at 67 cents, why, that is all right. In our case, I am in a little town and the prescription business is not wholly dead. We have twelve or fifteen prescriptions a day, perhaps, but one prescription is not worth half a dozen bottles of Hood's Sarsaparilla in that town, anyway.

President: I can say Amen to what Mr. Peck has said. In my opinion local organization is the key-note of the whole business, so far as the State is concerned. In smaller towns, where the druggists can get together and form an organization, there is no reason why cut-prices or demoralized prices should ever prevail, and I think that this Association should place itself on record with respect to the question of local organization throughout the State.

Mr. Price: I fully coincide with the views of Mr. Peck. We have a little association at the Soo and are doing good work. When these physicians' supply men come around to the physicians, they naturally ask us what sort of a house they are, and they get a very black eye right there. So far as jobbers are concerned we had one visit our town about six weeks ago, who has the agency for Hinckley's Bone Liniment. I bought 3 dozen from him, I think it was, and some of the others did. I looked in his valise, and he had some Bugaboo and Beef, Iron and Wine. I asked him what he did with them. Oh, they were for the grocery trade. If you can tell me where Bugaboo comes in in the grocery business, I would like to have you do so. I will say right here, that I spoke to him about it, and told him that if he was going around to grocery stores, inducing them to put in such things as Beef, Iron and Wine, it was simply undermining our business. The consequence was, he went around and sold some three or four stores.

President: If there is a jobber present who desires to reply, he is entitled to the floor.

Mr. Prall: That affects me. I find this a sort of a pleasant experience meeting, and, perhaps, those are the things that will best aid us

in getting along in business all the way through. I am pleased to notice one thing, that is, we are considering these questions and are trying to find out how we can best help ourselves. When the cutting problem first strikes a town, it is all acrimonious discussion of the cutter. I once wanted to marry a certain Scotch girl, and I did; and I have found that all her ways are ways of pleasantness, but, before I had had that experience with the Scotch, I had read of some of their peculiar characteristics, and one was the profuse use of the personal pronoun; so that a Scotch divine, in announcing his text, "The devil goeth about like a roaring lion," divided it into the heads that he would consider: First, who the devil he was; and where the devil he was agoing, and what the devil he was aroaring about. We come to this question of the cutter, and we ask who the devil the cutter is, and how, and why and what he cuts. Coming down last night from Saginaw, the sleeper was so full that I had to take an upper berth. I was just dozing off to sleep when a head poked through the curtains and said, "Boss, what's your number?" I replied that it was No. 7. He said, "That's all right" so I knew that he was the occupant of lower 7. A little later he parted the curtains again and said, "Well, I do not find any place to hang my clothes." I said, "You will probably find hooks in the back corners of the berth." Then my slumbers were disturbed by the porter, who came along to show him where the hooks were; and the fellow kept grumbling and asking me questions. At last I said, "Well, hang it, hang your clothes on the porter, and then hang the porter." We used to talk of the cutter, and hang the worn habiliments of invective on him, and then would fain hang him; but we do not thus dispose of him. I think there are many of these questions that we can only fully appreciate as we are directly affected by them. I never thoroughly understood this cut-rate business while it was going on in Detroit and not in Saginaw, and I do not think that they appreciate it so thoroughly in Grand Rapids as we do, but I think they have pursued the proper course. My aim and disposition have always been to have local organization, although I never could feel the necessity for it until there was a cut on. I think that time will settle lots of these difficulties. Years ago, I remember Mr. Colman's getting up in a meeting in Detroit here, and saying he thought we were too ethical and not practical enough, that some of the druggists had to sell even paints and oils, and he moved the rescinding of a motion that was antagonistic to the patent medicine trade. I remember Dr. Prescott supported him in that, and it was perfectly legitimate for the druggists to handle patent medicines. Now, I have a pharmaceutical education such as I could obtain in Philadelphia after being nine years in the retail business. I have been nearly thirty years in this business and I do not think it is right, after getting such an education in the business and doing all that I can to perfect myself in it, that I should let some farmer come in from the country and call himself a Doctor and take

the profits that are in our trade; so we put up proprietary articles, and even went so far as to buy one established proprietary article—the one that this gentleman refers to—because it was already established. We bought that because it was already on the market and I wanted to put other manufactures of ours along with it. Now, about selling to other parties. We are willing at any time that druggists should state their case. No man traveling for us is authorized to say to a customer that he will sell there and nowhere else, only to druggists, and then go off and sell grocers; that should not be countenanced, of course; it is not fair business methods. I am only explaining why we put up all these articles. They are sold, I suppose, in general stores where they do keep drugs and where they keep groceries. I do not suppose there is a jobber in the State but what does the same thing, and we do some jobbing. We would be glad to do away with patent medicines entirely, as suggested by the gentleman from New Orleans. We have an education in that business, and we hire educated pharmacists. I think we have in our employ more registered men, perhaps, than any retail establishment in Michigan—at least, more than any that I know of. We have eight registered men and we do our best to cater to the physicians' business. The physicians' supply houses come into our city and take the business away from us largely, but I am happy to say that we stand in a position, to fall heir to anything that legitimately belongs to our business, and within the last six months our prescription business has more than doubled, because we seek always to keep on the right side of those people. If a physician wants to buy elsewhere, we think that we must let that take time to adjust itself. We think that he is not in a position to be a dealer and do the merchandising; that he should be a professional man only, and that he will find out in the course of time that it won't even pay to make them. We send a man around to interview the physicians and we write to them every week nearly. We write letters and call attention to new products—those we make ourselves as much as possible—and the others that are brought into town. I do not think that we can come in here and say that we will not handle patent medicines. I do not think that we can get up a company to make these pharmaceuticals and patent medicines and put them into the hands of the trade very thoroughly. It seems to me like the non-secret business, which appears to me to have died out. My position in the matter is, to do as fairly as we can by every class of trade, and I am ready to be criticised and to be called upon, as by this gentleman, if we do anything that is not fair in our business, and will endeavor to make it right, and I should prefer, first, to do an exclusively pharmaceutical business, a prescription business; but we could not make a living out of that, so we added the rest of it, and we do every branch of it that is considered legitimate, to the best of our advantage, and try to make as much money out of it as we can.

Mr. Price: As I understand it, poisons are supposed to be handled

by druggists. That is what we organized for, for the protection of the public. The remarks of Mr. Prall are all right, but I do not think he explained why grocery stores should mix up bedbug poison with crackers and cheese and the rest of it.

Mr. Prall: That Bugaboo which he speaks of is composed of tar camphor and gasoline and some oils to disguise the odor, and there is no poison in it.

Mr. Price: That doesn't affect the principle of it in any way. I do not see wherein that business comes in the grocery business at all, or Beef, Iron and Wine, either.

Mr. Davis: There were one or two things came up this morning, one especially, which I wish to speak about, especially as the talk is now rather desultory. In the report of the Committee on Trade Interests, it was stated that the wholesale druggists continually say they do not make any money, but your Chairman said he had not seen any reports of any failures or liquidations. I have not the statistics with me (I was in hopes to get them, so as to bring them up here this afternoon), but, simply speaking from Detroit's standpoint, I want to state that a few years ago there were six wholesale drug establishments in Detroit; to-day there are only three. In Chicago, I forget now how many there were at one time, but they have diminished fully one-third. In St. Louis one large store, doing a business of three or four million dollars a year, burned out four or five years ago and never started again. That is the case all over the United States. Now, what I am leading up to is, that, although the wholesale druggist, perhaps, is an interested party in the matter of manufacturing, at the same time, if you go into this sort of thing, you want to do so with your eyes open, and go in carefully. The wholesale druggists have had a great deal of experience and a good many of them have made failures in their manufacturing departments. It takes a great deal of money, and in the first place you have got to secure a manager. The manager must be a very competent man. You must pay him, probably, if you get the right kind of a man, from three to five thousand dollars a year; and you cannot secure a good one for any less. If you get a poor man, the experiment must fail. Next, you must secure a chemist. Chemists on the market that are up to date and experienced demand \$2,500 a year. You may secure one for less, but there is a question whether you would get a competent man for less. Next, you must secure an assistant chemist, to whom you must pay a liberal salary, so that, in case the head chemist is away, he can take his place. You must have a house to do business in; you have got to pay rent, you have got to pay insurance; you have got to have more or less minor help. Then you have got to place your goods upon the market. Now, then, in order to do this, I want to state, from a jobber's standpoint, that 55 per cent. of the business of the wholesale druggists in the United States to-day is in proprietary medicines. That has been

tested time and again, and some even give the figures as high as 60 per cent. Twenty per cent. is in druggists' sundries and the remainder is divided between pharmaceuticals and straight drugs. Now, in the matter of pharmaceuticals, if you extend your business through the United States, you undoubtedly will do a large business, that is, if you can establish your goods with the doctors. But if you depend entirely on simply the stockholders in the company for purchases, you will find that you make a mistake, that they will not buy enough to warrant the expenditure and the interest on the investment. This morning you spoke of securing 500 members at \$100 each. I don't know but you might get that number, but I doubt it very much; I doubt if you could get one-quarter of that. A great many druggists are very small, financially. Could they afford it? After all, the main thing would be the dividend, and, after the business had run along several years and there was no dividend, what would your stockholders say and do? Even if you go into this scheme, the present large manufacturers throughout the country are not going to stand by idly and see their trade drift away; they propose to get the business. If 25 per cent. would not get it, they would drop to 40; if 40 would not get it, they would drop to 50, and so on, until goods were sold without a profit. I am, to a certain extent, pleading our own cause, because, as a jobber and as a manufacturer, we want to make a living. The retailers in Detroit say to us, "Now, you must not sell cutters in Detroit." We say, "All right, we will not sell them." But the cutters get the goods just the same. They send over to Chicago and get all they want. Forty to fifty, perhaps sixty thousand dollars in goods have come into the city of Detroit within the last twelve months that the jobbers here could not sell. We claim we ought to sell them, but we are willing, and have been always, to stand by the retail druggist. Now, the retail druggists have never said to the physicians' supply houses of this city (some of whom, I believe, are members of your Association here): "You must not supply our customers with goods." You let them supply them and they take away your trade and your profit. The prescription department is the cream of your business, yet nothing is said against that class of houses. It is only against the jobber who is selling the cutter. If the department stores and the cutters take 55 per cent. of the wholesaler's business, and the retailer says you must not sell them, and the retailers go into manufacturing and take 15 per cent. more, and the physicians' supply houses sell the customers of the retail druggist, where are the jobber's business and profit to come from? Some of them will have to go out of business, but the question is, Will they do it? I merely speak of these things because they are important factors, and I believe that the wholesale dealer is just as important to the retailer as the retailer is to the wholesaler, and those things should be taken carefully into consideration. Now, to get your goods before even your own physicians, you must do an immense

amount of work. You have got to have your salesmen. They will have to do a great deal of talk (which costs money) before they can get their goods introduced, and even then the sales will be very moderate. I do not know that I have anything further to say, but I thought I would speak my mind upon this subject, because we are interested and I sincerely hope the retailers will not go into anything rashly, but look over every point carefully. We are willing to talk with any of them at any time, and show up the cost of manufacturing, and of a plant, and the expense of introducing the goods. We are always glad to do that, but, before putting up your money, look into it carefully.

Mr. Bassett: Not being connected with the trade at the present time, I am compelled to draw a little on my memory, and I want to say, in the first place, that it strikes me, from my information and observation during the past few years, that the whole question hinges upon organization. Now, that seems very simple; but there is the hub of the whole question—organization. It is only three years, I think, since we were in Montreal—three years ago that the National Wholesale Druggists' Association met in Montreal—and adopted a series of resolutions which had been formulated by the American Pharmaceutical Association, and had been thrown back and forth from one society to the other until they were felt to be practically perfect. That National Association of Wholesalers—there are something like 400 members, I think—met me very fairly. I would say that I was a delegate from the American Pharmaceutical Association, to try and secure the adoption of that resolution. They met us very fairly and squarely and finally agreed that they would refuse to sell goods to anybody in any town who cut prices, where 50 per cent. of the trade of that town was organized. Now, I want you gentlemen to think of that very carefully, that they demanded that one-half of the trade only in the locality should organize and request that the parties that were cutting the prices should not receive goods, when they would not be furnished with them. As a result, we that were there came away very much elated. We elected Mr. Davis President of the other Association. I took hold of the matter very earnestly and it was the determination of jobbers throughout the country to refuse to sell to cutters if 50 per cent. of the trade would ask them to do so. I came home, and we attempted to organize in Detroit 50 per cent., and we failed utterly. The history of that movement all over the United States, barring, occasionally, a town like Grand Rapids, was that they failed to organize even 50 per cent. of their trade to shut off this evil. Now, in view of that fact, I for one became discouraged in the attempt to organize the retail drug trade. I do not believe there is any power on this earth that can organize the retail drug trade throughout the United States, even 50 per cent. of them, and unify them into any movement that even tends to better themselves. I hope you gentlemen will take that in good part, because I am not in the retail drug business now,

but that is what I believe. If you would do it, that would end the question the moment you did it. You would have the jobbers in your control and the manufacturers, also, and you could dictate terms and do just what you wished to, but you don't do it. No, it is a very taking idea, this organizing a stock company and making your own goods, and getting the manufacturer's profit, and the jobber's profit, and the retailer's profit, and everybody else's profit. That sounds very nice; but who are you going to get to organize? You have tried all over the United States to organize the trade, to save their dollars and beat the cutters—and you have failed. Now, if you think you can, in addition to that, organize them and draw the money out of their pockets to start a co-operative institution to make the goods for them to sell, why, I certainly hope that you will succeed, but I will feel, personally, a little bit lukewarm about the success of anything of that kind. It might be done! Do not understand me to say that I do not think it could be done. It might be done and very successfully, but I am harping on the one question of the utter lack of determination, and I will go further and say, of ability of the retail druggists to organize themselves into anything that is cohesive. Now, I see my friend, Mr. Eberbach, pitched into the physicians' supply houses. That is all right; that doesn't hurt anything. There is no question at all that the physicians' supply houses do tread on your toes. I expected to do it when I helped to organize that physicians' supply house here in the city. I expected to have that thrown at me, just exactly as the jobbers expect to get abused when they sell anybody who cuts prices, but they have got kind of used to it, you know, and I do not believe it makes them feel real bad. The whole question resolves itself into just this: You won't organize; you have been solicited to organize. You have had every inducement that is possible to devise held out over this country to organize to protect yourselves. I am not talking now directly to those who are here, but to the trade all over the United States. There has been every inducement possible held out to organize the retail trade of this country. The American Pharmaceutical Association has spent thousands of dollars in the effort to get the retail trade to organize. The jobbing trade, the manufacturers' association, and the National Wholesale Druggists' Association have spent time and money trying to get you to organize, and were willing to live up to anything that you would ask after your organization, but you have failed to do it. It is a kind of a nasty thing always for a man to say, "I told you so," but I think I saw this thing coming several years ago. I fought it just as strongly as I could—this cutting. I saw the result of this cutting of prices and all the rest of you did. Mr. Prall stands up and says he did not feel it in Saginaw when we were complaining here three or four years ago; Saginaw didn't feel it. But when it struck Saginaw, then Saginaw commenced to feel it, and when it struck Chicago, it went through that city like a prairie fire,

and it extended its influence all over the country, until to-day all of the profit is probably sapped out of the drug business, and not only in the retail trade but the jobbing trade as well. Now, I believe Mr. Davis. I feel that he knows what he is talking about, when he stands up and tells how the profits of the wholesale trade have been frittered away, until to-day it means very poor returns upon the immense capital that is invested in the jobbing trade over this country. As I say, I foresaw this, and the trade have cut their own throats, and now I guess they will have to bleed to death; I don't see anything else. A good many of them have bled to death over the country and a great many are bleeding to death gradually. At the last meeting of the jobbers that I attended at New York last fall, I remember a gentleman's standing up from the State of Pennsylvania—a representative druggist from that State—and making the statement that the jobbing trade were carrying—I won't say what percentage—but they were carrying and absolutely owned a large percentage of the retail trade of the State of Pennsylvania. That is the condition of affairs. I think the corner stone of the whole thing is organization; organization and cohesion would wipe out this thing. I do not know but it has gone so far that you cannot do it now; possibly it has, but I do not know. Personally, I have eliminated that trouble to a great extent from among my own troubles, and the only thing I can say now is that if any of you want to borrow any money on your real estate, why, I will be glad to lend it to you.

Mr. Davis: I have an engagement at 5 o'clock, although I would like to stay and hear this discussion, but I simply want to corroborate Mr. Bassett's remark, that organization, without doubt, is the whole bottom of this thing. It is hard to organize thirty thousand retailers; probably they cannot do it, but I believe, in the matter of this cutting, to stop that, there is one way beyond that, if it could be done, and I say this with a great big I F, and that is by the cohesion of the manufacturers. If the manufacturers would stand by one another, and stand by what they agree to, this whole matter could be stopped. We have fought, through the National Association, for three or four years now, to get a plan through by which they will supply the wholesale druggists only, and they have the names of every one of them in the United States. If they would do that, we could control the balance; but the trouble, at the present time, is the scaredness of the manufacturer. They are anxious to sell their goods and turn them into money, and the last two years, during this great financial panic, they have all been hard up and wanted money, so that they have been willing to sell their goods even at a sacrifice to large cutters, in order to unload. I know that to be a fact. Manufacturing people like that, although apparently they make money, have large investments, and their advertising bills are tremendous, but if that end (the manufacturers) could be controlled, undoubtedly this whole business could be prevented. I am afraid it cannot be done, however.

Mr. Bassett: It could be if the retail trade would organize.

Mr. Parkill: There was a little boy once whose mother caught him telling a story, and she reproved him and tried to frighten him into truthfulness by saying, "Johnnie, if you tell stories, you will never go to heaven." The little boy was thoughtful, and then he said, "Well, mamma, did you ever tell a lie?" The mother was somewhat taken aback, and, finally, she admitted that, perhaps, she had not always told the exact truth. The little boy then said, "Does father ever tell stories?" "Well, perhaps papa has told a story occasionally." "Does Uncle John tell stories?" It was getting rather interesting for the mother, and she said, "Well, perhaps there is nobody in this world but what has sometime told something that was not exactly so." The little fellow was thoughtful for some little time, and his mother asked, "Well, Johnnie, what is the matter?" And he says, "Well, I was just thinking what a lonesome place Heaven will be, with nobody there but God and George Washington." In my remarks I am not complaining about the physicians' supply house. I am simply stating the condition of things as they exist. There is a physicians' supply house here, and it is going to stay. There are cutters here, and they are going to stay. They will cut and they will sell goods just exactly as though we do not talk. My inquiry was if anybody knew how to meet it; that is all I want to say about the matter. If I can meet it, that is my privilege, of course, as a business man. I do not blame the physicians' supply house; that is a matter of business. We cannot blame a man who has his money invested for wanting to sell his goods. There is no use of frittering away our time talking about this thing. They are here, they are cutting and they are going to cut. We have discussed all this afternoon matters of trade interest and this cutting is a matter that we cannot correct; but there is one thing which I think this Association has largely lost sight of. Here we are, 60 or 70 of us, all business men and in business. You have started out improving, and you have got a better meeting than you have had in five years. Why? Simply because you make it lively; you have sports, you have games. That is the way to do, and you have started out exactly on the right plan. There is another thing we can do and that is, as druggists, we can talk about pharmaceutical matters; not necessarily extremely scientific matters, not about chemical reactions, chemical tests and those things, but we can talk about little matters which continually come up in the course of business, little ways of doing things, little things which come under our attention, and such as that, and an afternoon spent in that manner would do this Association and the members who are here more good than ten thousand weeks of talking about these things that you have talked about all the afternoon. That is the way I believe about it.

Mr. Bower: I want to say that down in Ohio we feel a little bit differently about what is possible in the way of preventing this cutting.

We have been approached there by a scheme that has been presented here to-day, and a very satisfactory report given on it, I think, as to the progress made—I refer to the Universal Trade Association. I do not know just how far it has progressed in Michigan, how much work has been done on it, or how many endorsements it has received, but I know what it has done in Ohio and the adjacent states wherever its representatives have gone. Now, if they could go on all over the country, very soon we could have a strong enough organization to control this matter, to dictate terms to the manufacturers and jobbers. There is the solution of this question, in the Universal Trade Association, and I believe you all understand it well enough so that it is not necessary to go into details, but I feel perfectly satisfied that in that scheme we have got the solution of this whole thing. There is no question about it. We can prevent cutting, not only in cities but in hamlets; not only where there are bazaar stores flourishing, but where exclusive druggists are doing the cutting. I believe that, after the endorsement the scheme has received from the State Association of Ohio and also from other places, it having been born right here in the State of Michigan, this Association ought to give it endorsement and support.

Mr. Eberbach: I have listened with a great deal of interest to this conversation this afternoon in regard to our trade interests, and, particularly, the question of cutting and physicians' supply houses. This discussion has been up before in this Association, if I am not mistaken, for the last seven years, and I do not see that we have got one iota farther this afternoon than we have in the years gone by. It is due to the very fact that there is not activity enough in the calling of the pharmacist in this State to join and make a solid union. It has been touched on by all the speakers, and that is the keynote to the whole problem. If the pharmacists of the State could arouse themselves to organize, and put aside some of their petty jealousies, which are probably more or less the cause of this neglect, I think we could bring about in the course of time a strong organization. The only way it can be brought about is by organizing, locally, either in towns or in counties, and from such organizations back on to the central organization of the State.

Mr. Bassett: Will you allow me to interrupt you and recall your memory to the fact that we tried that some seven or eight years ago—don't you remember?

Mr. Eberach: Yes, I know, but the failing of the organization is due to the pharmacist. It is not that the principle is wrong; it is due to the fact that the pharmacist did not take it up. It is the same fault that met the proposition of the National Wholesale Druggists' Association. It is the fault of the pharmacist, altogether—of the retailer. If the retailers would make up their minds to reorganize—first in their towns or counties, and from there send their delegates to this Association—I think something could be accomplished; but they have got to

make up their minds to put aside all petty jealousies or small differences and go at it with a will. This matter of cutting can only be controlled from that source and from that side. It is a business matter, and no one can dictate to any other business concern how they shall sell their goods. They buy them and they will sell them, and if they think it is for their interests to sell them for one cent profit or for nothing, they will do it; there is no resolution of ours that will ever put a stop to that. So far as the physicians' supply houses are concerned, the same facts are true there. If the pharmacists in their localities would go to see their physicians and present the materials that they carry, show them what they could buy, I think they could convince them in a short time that they could furnish them the goods just as well as the supply houses. Of course, the profits are small, but you are in business, and you are carrying the goods, and if you cannot get 25 per cent. you will have to take 10. You will have to meet the conditions of trade as it is found all over. In regard to this subject of going into the manufacturing business on the plan of a trust company, I think the matter looks very flowery in theory, but when you come down to the plain thing in practice, engage your help and follow up the other expenses, as they were detailed this afternoon by Mr. Davis, I think you will find it a very risky piece of business to go into. We have been in the manufacturing business on a small scale, it is true, but we followed it up for a good many years, and, although there was some fair margin in it for us, I do not think that it was a business that paid as well as if we had dropped the manufacturing and attended strictly to our general retail business and commercial matters connected with our pharmacy.

Mr. Bassett: Allow me just one word. I want to correct what I think possibly may be a misapprehension in regard to what I said. I think Mr. Eberbach forgets one thing in stating that the druggists will buy and sell at their own price. That is always true of products which have no established price, but it seems to me that where a man goes to work and makes something which of itself has very little value, and then establishes an arbitrary price upon it and advertises that to be the price, it is safe to say that that price is obtained. That is what he undertakes to do. When a proprietary medicine man comes to us and says, "This thing is a dollar," and he prints on it \$1 and advertises to the world that it is a dollar, while there is very little intrinsic value in the article, it becomes safe to say that it is sold for a dollar to protect the trade. Now, the other point is in regard to this idea of establishing a co-operative manufacturing institution. I think it is perfectly feasible, if you can get enough of the retail druggists to go into it, and go into it understandingly, and stick together on it; just exactly as it is possible for the trade to regulate the price of proprietary articles if they would get together and stick to it. The only point that I wanted to throw out was, do not be carried away with the idea that

it is going to be a perfect success from the start without any effort, and that everybody is going to fall right into it. I had an idea, a few years ago, that it was a very easy matter to organize the retail drug trade when it was a matter that touched their pockets. I had some experience, however, in a matter that touched their pockets, and I got that idea rubbed out of me. After three or four years I began to think that it did not always work that way. If enough of the retail druggists would find it to the interests of their pocket to go into it as a business enterprise, and would be willing to stand the expense, the trouble and the labor of establishing an institution of that kind, they could do it; there would be no question about that, but will they do it?

Mr. Anderson: I have listened to the talk this afternoon from the different sources and from men who have been in the retail business a great deal longer than I have. I have not received a single new impression while I have been listening all the afternoon. I am told this question of organization has been up as long as eight years. I am told by Mr. Bassett that the retail drug trade is simply going to bleed to death. I have been told that we need not attempt to make goods and make any profit on them, because the expenses are so high. I do not believe in the organization of the whole trade of the United States; I don't believe it can be done. I never knew, nor did any one else, of 30,000 people being brought together under one head. We are not talking about organizing 30,000 retailers; we are talking about organizing simply enough men to work together. Now, we have tried everything else. We have tried listening to the wholesale and retail trade. We have tried everything under the sun that you can think of, but we have not tried to determine whether there is any profit in making goods, or whether there is not. Now, you know that there is. You know very well that, collectively, you can manufacture cheaper than you can singly. If you have a certain number of stockholders, you can begin, and you can go right on. I have the facts right in my pocket from a concern of this kind that started in Hamilton, Ont., and to-day they are doing business. This is not a mere theory which has never been tried. I do not mean to say we are going to jump in here and make a colossal fortune, but what I do say is this: That we can go to work and produce goods of our own manufacture and get something out of it. We are not getting anything out of it to-day. That is my idea. It is a reflection on the common sense and business acumen of a body of men such as this to say that you cannot go to work and make goods and sell them at a profit, when you know you can go into your own laboratories and make them singly and sell at a profit. Take the item of traveling expense alone; there is a saving right there of from 20 to 35 per cent. You are aware that you can buy crude drugs just as cheap as any one. Consider such items as Antikamnia and Aristol. The former costs about 7 cents an ounce, and the manufacturer gets a dollar for it. That affords a nice margin to advertise

on. I do not suppose there is a man who would go into such a scheme as this, and think that for one, two or three years he would see any dividends. We do not wish to organize a large number of men. Do you know what this concern in Hamilton, Ont., started with? With about a dozen men; and all they have to-day is sixty-five members, yet they are able to pay an 8 per cent. dividend in two years, based on the money paid in. Look at the manufacturing pharmacists of this country—are they paupers? By no means. I have a distinct recollection of some of them making some very handsome returns on their investment. Do you think the physicians would not accept your preparations, when they put their prescriptions into your hands for dispensing? Certainly they would. There is just this much about it: When it comes to paying out \$8, \$9 and \$10 a dozen for stuff that doesn't cost \$2, and being satisfied with a profit of three and four cents a bottle on it, why, I think it is pretty nearly time that we looked around for something of that kind ourselves.

Mr. Simons: I believe that the retail pharmacist must have the friendship of the physician, to be a success. We all realize that. I think it resolves itself into this: We must make these pharmaceuticals ourselves, or else we must combine with others to make them. Shall we do this individually, or shall we do it collectively? Some of us are doing it individually, and we think we must keep at it. We must increase that part of our business, or else we must go into an association. I do not believe in any scheme that is going to help us advertise patent medicines; I do not believe it is possible for us; I do not believe it is wise; therefore, I should be a little skeptical about this label scheme. I think a co-operative undertaking is very much more promising. I have felt that if we cannot get 50 per cent. we can get 10 per cent. Let us get together enough druggists to try this thing. We can try it right here in this city, or we can try it in the State. I think we must do that; I think we will do it, too.

Mr. Colman: We have had a long discussion this afternoon and I think it is just what we need. If any one has an idea that the members of that Committee had some rule to go by, and thought that everything was going to be smooth sailing, and that there were no obstacles in the way, no counter considerations, you are mistaken. We realize that there are two sides to the question, that there are obstacles, which Mr. Davis portrayed so well, and we had estimated, and I for one was very glad, indeed, to have him give us the information, which I have no doubt was reliable in the main—possibly colored a little bit, as all these things are apt to be from our own standpoint. I am glad of what Mr. Parkill and Mr. Bassett have said. I hope it will have due weight, not too much nor too little. But we must do something besides what you have done for the last six or seven years, to my knowledge—simply come together and talk. I, for one, would be glad to know how many men there are here who would be willing to come to-

gether for a closer consideration of this matter; not say that they are ready now to put \$100 into the scheme, but men who say, I believe there is something in that, and I want to investigate it further. No one of us wants to put \$100 or more into any chimerical scheme. I am ready to chance \$100 on it, and I should not feel that there was very much chance in it, either, provided it is properly organized. I am ready now to say that I would put \$100 into it, along with the right kind of men and the right kind of management, and I am ready to get together with any other number of men at almost any time and place, to consider the matter further. I want to say right here one thing: I would not want Mr. Davis to get the idea, or any other of our wholesale friends, that the Committee, or any of us here, have any grudge against the wholesale trade. We have not any such. The only reason in the world why we propose to go by them in this patent medicine business, or in the pharmaceutical business, is so that we could get right back at the manufacturers and have a direct connection between the retailers and the men who make and control the goods. That is all.

Mr. Peck: I think our getting together would not be a very bad plan to form a nucleus organization. I would like to take \$100 stock in it, and, perhaps, a good many others would. If we can get, say thirty or forty to take \$100 worth, why, there may be something in it.

Mr. Price: I fully agree with the former speakers. Being a Canadian myself, graduating in Toronto, and putting in a few years in the drug business in Canada, I know quite a number of the members of that stock company. All of them that I have talked to are very well pleased with it. So far as expenses are concerned, I do not think it is necessary to put up any mammoth building in a large city where rents are high. We can start in some smaller town. I would like to turn this into a Moody and Sankey meeting, and have a standing vote as to just who are in favor of organizing this Association into a stock company, and I would suggest that all who are in favor should stand up.

Mr. Walker: I would like to ask what we are going to manufacture? Are we going into the patent medicine business or pharmaceuticals? That is all I want to know.

President: It seems to me that the idea is gaining ground that this proposed organization is to be an organization of the Michigan State Pharmaceutical Association into a manufacturing concern. I do not understand it that way. The Michigan State Pharmaceutical Association will go on as it is, entirely independent. Any man who cares to go into an organization outside, should such an one be formed, can put in his money to the extent that he sees fit, just as he would in a grocery business, or any other business, and it will be entirely separate.

Mr. Anderson: I do not think that it would be right to bring this

matter down to a society affair. We put this into the report because we are called upon to bring up measures to prevent cutting, etc. We put this in as an idea. The working out of this idea, perfecting the details and bringing it on to a business basis, is something that must be entirely separate from this Association. We simply bring forward the idea here. If there are any among us here who believe the idea is a good one, we want to get together and talk the matter over in a separate meeting. This is a semi-scientific association, as I understand it, and, of course, it would not do for us to make it an association scheme. The object was simply to bring it up here for argument, as we could reach a larger number in this way than otherwise.

President: It is in order now to take up the balance of that report.

Mr. Stringer: I think we have been talking a long time this afternoon and we have not accomplished anything, but I have been very much impressed with the idea of the gentleman from Toledo, and I would offer the following resolution:

Resolved—That this Association approves of the idea of the retail druggists of the country uniting themselves together in one great protective association for all general trade purposes, offensive and defensive, and recommends them to join the Universal Trade Association as a means to accomplish the end in view.

President: What do you do with this resolution, gentlemen? It would, perhaps, be best to dispose of this question that we have under discussion first, before we take up this other subject, which would be in order immediately after finishing the one in hand, together with that of insurance.

Mr. Phillips: I would move that we lay the resolution on the table until our next session, if that is in order.

Adopted.

Mr. Anderson: It will only take a moment to dispose of this insurance matter. I think we ought to recognize it by giving it our approval. It is not a question that involves anything more than that. If anybody is interested in it, he can take stock in it, and if he wants to take any insurance, he can take it among the retail druggists, instead of the other companies, and it certainly is a step in the right direction for our own benefit. I am informed by Mr. Bower, of Toledo, that even with the small Association they had last year and for the past three years, it has reduced their insurance rates something like 30 per cent.; that is certainly worthy of consideration.

President: I had some conversation with Mr. Weyer, of Cincinnati, who is at the head of this insurance company, and he is very enthusiastic, and informed me that it has been entirely successful. As I understand it, they are now forming a National Association. Mr. Bower is here. He is thoroughly conversant with all that pertains to that Ohio company and I shall be glad to accord him the privilege of the floor if he will enlighten the Association upon the subject.

Mr. Bower: If it will not be putting matters off too long, and putting off too many matters, I would like to speak on this subject when there are a larger number of people here. They have dwindled away considerably.

President: Mr. Bower has a mission here; he is here for business, and, of course, it is only just to him that we should accord him as large an audience as possible. If the members present will do all that they can to get a good attendance in the morning, it is possible that we can crowd all these matters into one final session. We can hold over into the afternoon, as there is nothing doing to-morrow afternoon.

The meeting then adjourned until Friday morning.

FIFTH SESSION.

President: We have considerable business on hand for this morning, including the question of fire insurance, which Mr. Bower comes up from Ohio to explain. We, also, have a very important report of the Committee on Adulterations, which will take but a short time. Then we have the final business before the Association--selection of the place of next meeting and the election of officers. If there is no objection, I will call upon Mr. Bower now to address the convention on the subject which he has in hand, fire insurance.

Mr. Bower: I do not know whether you are all acquainted with the history of the Retail Druggists' Fire Insurance Association or not. Many of you are, perhaps. It has been agitated for a number of years by state associations and by the drug trade journals. You have all read a good deal about the injustice that has been done to the retail druggists by the regular line fire insurance associations and companies, the high premiums that they have been insisting on, making the retail drug risks extra hazardous, when they are not, as has been proved by statistics. Until a few years ago there was nothing done to bring about anything in the way of an association or company to insure retail druggists against loss by fire. About seven years ago, the thing was first broached in the Ohio State Pharmaceutical Association and a committee was appointed for formulating a plan for getting an association. Mr. Weyer, of Cincinnati, took the matter in hand, and, after hard work for over two years, finally succeeded in organizing an association under the laws of Ohio. It was necessary at that time to have business that would bring in premiums amounting to a total of \$10,000 before we could get a charter as a company. We have never yet, up to this time, been able to organize as a company, because there has never been quite business enough. Still, after five and a half years' experience in Ohio, we have met with a fair share of suc-

cess, and have effected a saving to the policy holders, in the face of adverse circumstances. We went into it in the wrong way, in the first place, by taking all sorts of risks in little villages and places where they had no facilities for handling serious fires. In those five and a half years, we find that the losses in those little places amounted to over 145 per cent. of the amount of premiums received from that source, while in the cities it was less than 8 per cent. ; in other words, in five and a half years the losses to the Ohio Association from fires in cities and larger towns has amounted to a little over \$3,500—absolutely nothing, you might say—so that the larger towns and cities have been carrying the country. After all that, there has been a saving to the policy holders on their insurance of what it would have cost them for the old-line companies of at least one-third, and we consider that quite a good showing. The Association, if it continues, will hereafter not take any risks in the very small places and will work more into the larger towns. The primary scheme was not to confine the thing to Ohio, however, but to form a national organization which would take in the whole country in time. That plan was brought before the State Association, not officially but through some of the members, to form a committee who should draft articles of incorporation and present them to the Insurance Commissioner in Columbus. Eventually there was a committee formed consisting of the names as read off yesterday. We met together in Columbus about a month ago and went to the office of the Insurance Commissioner, after getting out our articles of incorporation. The Commissioner was absent, also his deputy, and would not be back for a week. We were a little disappointed in the matter. We thought the next best thing to do was to go and see the Attorney General and get an opinion on the matter, as to whether it would be in conformity with the laws and regulations of the insurance business in Ohio. The Attorney General refused to give an opinion at all. He did say, however, at first glance, "I do not think you can do anything of the kind. It looks very nice on the face of it; it is very unique, it is a great thing if you could get it going, but I do not believe the laws will allow you to do anything of the kind. That is my opinion; I do not give it as final, but I do not want to pass an opinion on it now, anyway. I do not want to influence the Commissioner." We then had to leave the matter in the hands of our friends in Columbus to present to the Commissioner when he came home. We recently received notice from the Commissioner of Insurance that the articles of incorporation were approved by the Insurance Department, and that settled the matter. That gives us a chance to go ahead. The plan now adopted is essentially the same as set forth in the circular sent to the druggists three years ago. We had at that time the idea of pushing the national idea forward, and to that end the Secretary sent out circular letters to all the policy holders, who were considered members of the Association, asking their opinion as to forming a national com-

pany. The majority of the risks were in little towns and it quite frightened those fellows; still, the opinions from the larger towns were very much in the majority for the forming of a national company. On account of the adverse opinions from so many, however, we thought the time was not yet ripe to start that plan. Now, however, the conditions are better. Speaking about efforts in other states, they have been made in several of them, and have failed. In Indiana, recently, the State Association appointed a committee to formulate a plan whereby they would form a State organization for fire insurance. Mr. Eads was sent over to Cincinnati to interview Mr. Weyer and get points from him, he being, of course, well posted. When he got there, although there had been no action taken on this thing, Mr. Weyer told him what he proposed to do. The moment the plan was submitted to him he said, "That is just what we want; I shall go back and tell my people that we don't want to form any State organization, that we will go in with the National." He was sent over to Columbus to meet this committee and he was one of the signers of the incorporation papers. That shows that Indiana will be with us there. The plan will be to form a stock company, and it will be capitalized at \$200,000 in \$100 shares. It will permit us to go into any state and carry anything that we may consider good, not only retail druggists' stocks, but their buildings and, possibly, their household goods, and their homes, where the risk is considered good, and where the premium fixed on them by the Board of Underwriters is sufficiently high to justify us in taking them; also any other business that is considered good can be done. It will not, necessarily, be taken, but it can be if it is considered good. The plan is for a stock company, and, for those who care to take stock in it, it will be a splendid investment; there is no question about that. We do not propose, at first, to go all over the country, but to work in the States of Ohio, Michigan, Indiana, possibly Illinois, Kentucky, West Virginia and Pennsylvania. When we get the experience necessary in the matter, we can gradually take in the whole country; but with the experience the Ohio Association has now, the thing is a foregone conclusion. We want support from the surrounding states. It will be a settlement of the fire insurance question for the druggists of the country. I would like to hear some expressions from members present, on the subject, and if you do not care to take any great number of shares of stock, if there are any among you who feel satisfied that the enterprise is a good one, and you care to take a share of stock, as a trial, the amount assessed in small amounts, as it is needed, will be applied and credited on stock that might be issued to you later on.

Mr. Todd: How do you determine the rate?

Mr. Bower: As nearly as we can by the Board of Underwriters' rates. That is the plan we worked on in Ohio and the savings will be rebated to the policy holders. Each one pays in that amount in the beginning; that is according to our constitution. We are not allowed under the laws of the Association to have any reserve fund.

A member: Would it be possible, then, to make any less rate by our old line companies?

Mr. Bower: The insurance on drug stocks is 15 cents per hundred higher than on dry goods stocks or groceries, but the same on our buildings. Then we have a Commission of Insurance which fixes the rate on certain classes of property. Of course, we would have to abide by that in regard to location, etc. Of course, if we can write less than they do, it will be a benefit. This company will establish its own schedule, but be guided largely by the Underwriters' schedule. Where we find them unjust and too high, we will readjust them.

A member: Will the Commissioner of Insurance allow us any less rate under the present State law?

Mr. Bower: Not except as a rebate.

President: You have heard this report from the delegate from Ohio. It is an important subject and I would suggest that, if there are any questions which suggest themselves to you, you ask Mr. Bower for information. He is here for that purpose and I think it would be wise for the Association to give the subject a little time.

Mr. Colman: Is your plan of operating acceptable to the Commissioner of Insurance in Michigan or in other states? I noticed, awhile ago, that our Commissioner of Insurance was having trouble with the Lloyds. Is there any danger of anything of this kind in connection with your company?

Mr. Bower: We have thoroughly examined the laws of the different states, and Mr. Weyer is thoroughly conversant with the rulings of the insurance commissioners. Before we went into this, we thought, possibly, we might go into some other state to incorporate, where it might be a little easier, but we thought the thing all over, and concluded that, perhaps, the strongest organization we could possibly effect would be afforded by the laws of Ohio, which require, perhaps, more than any other state, and those incorporation papers for Ohio will carry us anywhere in the country. We have taken especial notice of the laws of the surrounding states, where we expect to do business first.

Mr. Dupont: I would like to ask, for the information of those that might be willing to take stock, whether a person taking stock would be liable for only the amount of stock held, or double the amount?

Mr. Bower: Under the laws of Ohio he is liable for just double the amount, no more. That makes the Company all the stronger, because persons taking insurance in the company will feel safer and it will be much more easy to get members and, having the business, we cannot fail to make the stock pay, and there will be no trouble about the liability.

Mr. Price: I would like to ask if there is any limit to the amount of insurance which can be taken out? Is it confined to the retail business, or wholesale also?

Mr. Bower: It will be the policy of the company not to have any-

thing to do with wholesale or manufacturing establishments. It is supposed to take in the business and property of retail druggists, but the law will allow us to take any other business that we consider good, but heretofore we have not considered the wholesale risks good, although the Wholesale Druggists' Insurance Association has made money in spite of the fact that wholesale drug houses are considered very hazardous risks. They have had some very heavy losses, and especially about three years ago, as there were a number of very large fires, but, in spite of that, they have paid a dividend. Still we have always considered that the wholesale business is too hazardous for us and have steered clear of it. This company will also steer clear of anything that is considered extra hazardous.

Mr. Anderson: Regarding the saving that is effected, is it accomplished by a dividend on the stock to the stockholder, or is it returned to the individual who is insured? You say that you have a stock company. In the first place, the dividend must be paid on the money invested. Do you rate that at any percentage, and then rebate everything above that to the different policy holders without stock? Suppose I wanted to insure in your company without taking any stock, would I get a rebate to lessen my insurance, or must I buy stock to get the benefit of the rebate in the shape of a dividend?

Mr. Bower: The scheme is very unique, and it was considered by the people in the office of the Fire Insurance Commissioner as a fine thing, although they were not in authority, and that it would be a very good thing if it could be gotten on its feet. Half of the net earnings of the company is to go to the stockholders as profits. The other half is to be divided into funds. One-quarter of the earnings will go to the policy holders as a rebate, either rebated in cash, or applied on their next year's policy.

Mr. Anderson: What do you do with the other quarter?

Mr. Bower: It goes in as a reserve fund.

Mr. Anderson: I believe you said there was a saving of about 30 per cent. Was that figured out on this basis that you now propose?

Mr. Bower: No, sir.

Mr. Anderson: That was before you got a joint distribution?

Mr. Bower: Yes, sir.

Mr. Anderson: Then the man who insures without being a stockholder pays the regular rate of insurance established by the Underwriters for the different places, and then he stands a chance of winning on that one-quarter of the earnings—that is all—while the stockholder stands a chance of winning one-half of the earnings and, also, one-quarter more?

Mr. Bower: Yes, sir. Of course, in the State Association, remember, our earnings have been very small, because our losses have been heavy, as I say, in the little places. Our losses in large cities

and towns have been less than 8 per cent. of the amount of premiums raised from that source.

Mr. Anderson: That is all right, so long as you have facts to prove that they effect a saving of $33\frac{1}{3}$ per cent. on premiums; that is a very large saving.

Mr. Bower: One-quarter of the earnings as a rebate will amount to considerable more than that.

Mr. Anderson: I move that we endorse this scheme of mutual retail drug fire insurance.

Adopted.

The matter of the U. T. A. was then taken from the table and Mr. Hayes explained the plan in detail, stating that the idea of labeling medicines was adopted from the plan of the English government in labeling its ropes by means of cords of different colors, indicating the localities to which the ropes belonged. He claimed that the general adoption of it would effectually put an end to the cutting of prices, as it would enable the manufacturer to trace every bottle of medicine which left his establishment.

Mr. Colman: Will you just tell us how you use those labels in order to accomplish the end which you say they do accomplish?

Mr. Hayes: They are put on by the manufacturer.

Mr. Colman: But how do they work? How do you trace them after they are on?

Mr. Hayes: By numbers. When the manufacturer ships to the wholesaler, he ships by number. When the wholesaler gives them out to the retailer in any quantity, they are issued by numbers.

Mr. Colman: Does each dozen have a separate number?

Mr. Hayes: No, not each dozen; each bottle has a separate number - each package and they can be done up in half dozen or quarter dozen or dozen lots. That will encourage the retailer to buy in larger quantities. Instead of buying 1-12 dozen or $\frac{1}{4}$ dozen, he will buy in larger quantities - in dozen lots or half dozen lots.

A member: What is the advantage in buying a dozen?

Mr. Hayes: Well, there is quite an advantage. You would sell more of the article. You are not liable to have the business go out of your hands.

Mr. Colman: When a manufacturer makes up a gross of medicine, does each of those 144 bottles have a separate number?

Mr. Hayes: Yes.

Mr. Colman: And when he sends, say a half gross, to some small jobber, he keeps a record that shows that the first 72 of those 144 bottles have gone to a certain jobber, and then he sends perhaps the other 72 to another jobber, he has a record showing that, does he? And when the jobber, in turn, sends out one bottle to a man, he keeps a record as to whom that bottle went to?

Mr. Hayes: If it should be one bottle, it would not be absolutely necessary.

Mr. Colman: How small could you have the package for each number?

Mr. Hayes: Half a dozen.

Mr. Colman: And he will make an entry then of the six bottles that have gone to that retailer?

Mr. Hayes: Yes, sir.

Mr. Colman: As I understand it, when he bills it, he bills it by number?

Mr. Hayes: Yes.

A member: Suppose that retailer gets one of these circulars that come from Koenig & Co., of Chicago, offering to give liquors for any dead patent medicines they have on their shelves. They offer to take any patent medicine you have on your shelves and give you liquors for it. How are you going to trace that, if that druggist, we will say Mr. Smith, gets that half dozen from the jobber, and goes to Humiston, Keeling & Co., and turns around and sells it to the cutter? How are you going to trace that?

Mr. Hayes: It is traced by number. The retailer is charged up with it if he sells it to Humiston, Keeling & Co., of Chicago, who, by the way, have endorsed the system over their own handwriting; that will show that Humiston, Keeling & Co. have those goods. The retailer would be in duty bound to make an invoice to the wholesaler who had exchanged with him.

A member: If Humiston, Keeling & Co. turn around and sell those goods to a man who makes a business of furnishing the cutter, what are you going to do with them?

Mr. Hayes: If Humiston, Keeling & Co. should sell this party, they would become responsible to the association.

A member: What are you going to do, in the first place, with the druggist who turns these goods over to Humiston, Keeling & Co.?

Mr. Hayes: We would put him on the cut-off list and all manufacturers and wholesalers throughout the country would be notified, until he should pay that wholesaler the expenses of taking the goods up. Wherever we find those goods, we would be empowered to take those goods up.

A member: Have you any forms of checking sheets to be used in connection with these labels?

Mr. Hayes: We have not formulated a checking sheet as yet, but it is in process of being made now. Various wholesalers and various manufacturers have different ideas in regard to it. We have conversed with a good many of them as regards that, and many of them state that there will be no trouble in keeping track of the goods.

A member: What do the jobbers say about it?

Mr. Hayes: I have spoken to some of our jobbers here, who think

there would be no difficulty with regard to it; and we have spoken to the Chicago jobbers--Fuller & Fuller Co., Humiston, Keeling & Co., Morrisson, Plummer & Co., Robt. Stevenson & Co., Lord, Owen & Co., and Peter Van Schaack—who have endorsed it over their signatures. Fuller & Fuller Co. offers to use it.

President: I do not think Mr. Hayes has fully enlightened the Association on the way the project has been received by the large proprietors. I believe he took a trip East something like a year ago, calling on them exclusively.

Mr. Hayes: I called on some of the large proprietors in the East and they stated: "This is something that is entirely new to us. This comes from the retailer; everything heretofore has come from us and from the wholesaler in endeavoring to prevent cutting. Now, you formulate yourselves into an association and come to us, and I do not think that there is any manufacturer or wholesaler but will back your efforts if you get your organization properly effected."

Mr. Peck: It is fair to presume that some manufacturers will be hostile to this effort, from the fact that, as soon as a manufacturer discovers that the profits derived from the sale of his goods are larger from the cut-rate stores and bazaars than they are from the retail druggists, he is very apt to send his goods into that channel, because it increases his income beyond what it would be if he kept them in their legitimate channel. I do not see that your association can use any coercive measures in that respect.

Mr. Hayes: The manufacturer takes the opposite view to that, as a general thing, except Mr. White, of the Potter Chemical Co. He was the only one whom I talked with that approved of cutting; but he said, "If you get your organization into proper shape, and a goodly number, we cannot refuse to adopt it."

Mr. Peck: Suppose a portion of the manufacturers adopt your plan and a portion do not?

Mr. Hayes: Some manufacturers have stated that their business is injured by cutting. They say there are only about 300 cutters in the United States that do any business of any amount, and they are not in business to promote their trade. They claim that these cutters get the people into their stores and sell them something else, and have expert salesmen for that purpose, and the manufacturers say that this injures their trade. Mr. Hood stated: "I have been through the country, and I find that when I go to a legitimate retailer and ask for a bottle of Hood's Sarsaparilla, he hands it down, but when I go to a cutter, he has something else to offer. That injures my business." Then he put forward another suggestion, which amounts to considerable in his estimation. He says, "If you are living in the suburbs of a city and you want a bottle of Hood's Sarsaparilla, and your regular druggist charges you a dollar for it, you think you will wait until morning; and, when morning comes, you forget all about it." He

claims that there is a large percentage of sales lost that way. He also states: "How much better it would be to have the good-will of the 40,000 retailers in the country than the 300 cutters who are cutting against us, who are in business for themselves, and who are recommending their own goods. In Boston, the cut-rate stores have experts to diagnose your case, who will tell you what is the matter with you. And then they suit the matter to the case, and will tell you all about what their medicines have done, and assure you that their remedy is exactly the thing that you want."

A member: Don't the proprietors object to the expense of the labels and the cost of the clerical labor in putting them on and keeping track of them?

Mr. Hayes: There was one manufacturer who made an objection to that, but, after going over it, he stated that he thought that could be overcome, even if it was an additional expense and additional trouble. He stated that he thought his sales would be much greater.

A member: He did not talk about increasing his price?

Mr. Hayes: No, fortunately, he didn't.

Mr. Anderson: Would it not be a great deal better to pay a half dollar more and sell at the regular price than to pay seven or eight dollars a dozen and get nothing for it?

Mr. Colman: Schieffelin's folks said, three or four years ago, of certain requirements that were proposed by certain retailers, that they did not believe they should ever go into anything of the sort; there was not enough in patent medicines, anyway, to pay for any extra trouble, and if they had to be bothered with a lot of red tape, etc., they would sooner throw the whole patent medicine business out than have anything to do with it.

Mr. Hayes: The Government of the United States during the time of the war put a charge of 4 cents a bottle on dollar patent medicines. It will only cost the manufacturers with our label 4 cents a dozen, one-third of a cent a bottle for labels.

A member: How much for putting the label on?

Mr. Anderson: They make the girls who finish the goods put the labels on for the same price.

Mr. Colman: It will take up a great deal more room to put up a gross of medicine, and put an individual label on the bottle and keep track of it so that you can really swear by the results when you get through. You will have to have a good deal bigger wrapping room than you have now. It will increase the trouble quite a little bit in order to have the thing come out correctly. You can go into a thing and slip a cog every little while, and do it very easily that way, but to carry the thing through all right will require a system.

President: You say a difference of \$3 a gross. What would you do in case of preparations that cost us \$9 a dozen already? Where is the profit to come in for the retailer in that case?

Mr. Anderson: I tell you one thing, gentlemen, I do not think your question about the finishing of goods comes in the discussion here. Parke, Davis & Co. keep track of every bottle and every carton that goes out of their establishment. It is just a matter of system. The system runs right straight along and you would never know it was there, it is so beautifully arranged and so absolutely correct. I know of only one or two instances in a long time there where anything slipped a cog. Those are matters that I do not think we have to go into. The idea is this: Here is a label that is put out to identify patent medicines. If there is anything in the identification of patent medicines that is going to do this community of retail pharmacists any good, why, we want to endorse it, and then let the manufacturers figure out how it is going to be done. We are not called on to put up anything—only to endorse it. That there is good in it is shown by the fact that manufacturers use private labels to protect their own interests. Manufacturers of pharmaceuticals generally put private marks on their packages by which they can identify the product, tell when it was made, when it was sent out, and all about it. You take a finished product in Parke, Davis & Co.'s laboratory and they will tell the day when they bought the crude drug and all about it. They do that for their own protection, because they want to know what they are sending out. If they do that for their own protection, it certainly seems possible that this can be done for the retailers' protection. It does not cost anything to invest in it if we do not want to, but it does seem to me that the remarkable progress made by this plan is worthy of consideration. Agents of this plan go into towns and secure the co-operation of every druggist in it. I do not believe in the amalgamation of the retail drug trade, but when such a fact as that is brought to me, and it is a fact, why, it does look as if something was going that way. I have been impressed with the fact that it seems to be gaining some headway, and what we are called upon to do is, I think, to endorse it. When you come to put it into practice, and all the details of it, and go 30,000 strong to any manufacturer, and tell him, "This is what we want," I just tell you, gentlemen, they are going to listen with both ears; but when you go down, one man alone, and say, "Please, mister, do this and please do that," he laughs at you. He doesn't care a cuss for you. He would just as soon kick you into the street as look at you. As long as you are alone, you are no good. When there is an amalgamation, it means business. Mr. Peck was telling me something about a man in Grand Rapids selling Sarsaparilla. A groceryman sent an order down there for Hood's Sarsaparilla. The Grand Rapids druggists got right together and wrote Hood that if he sold him a dollar's worth of Sarsaparilla they would boycott the whole business in Grand Rapids. Mr. Hood sat right down and wrote a very cold, indifferent letter, making the concession. That is the first time it has ever come to my knowledge that Hood has been bluffed into

doing the proper thing. Here is a means to an end—it is a little beginning and it must be perfected—it is not absolute; but what else can we expect? There is no Moses going into this thing, you know, to lead us out of the wilderness! If there is anything in it, let us endorse it, and if Mr. Hayes can make it go, let us endorse him. Let us do what we can to help him along.

Mr. Todd: I think that Mr. Anderson has pretty nearly voiced the sentiment of almost everybody here, and I would suggest that any who are interested in this thing look into it further and subscribe if they think wise, as I believe a large share of the druggists in Detroit have already done.

Mr. Colman: I want to say that a representative of this concern came to my office last winter. I did not subscribe for it, did not take any stock. I subscribed for the periodical which they publish, etc., and gave him a dollar or two, I have forgotten exactly. It struck me that it was a good idea, if it was only carried out, and when Mr. Parkill was saying yesterday that these things could not be done—that the cutter had come to stay and we might as well submit to it—and Mr. Bassett was talking the same way, I said, "Mr. Hayes, I don't believe anything of the sort." I believed then that his project, with, perhaps, some modifications and, perhaps, without, could be carried through, and I think so now. So far as I am concerned, as a help in a small way, I would be very glad to go into it. You can count on our folks to use those labels, just as soon as anybody else does.

Mr. Stringer offered the following:

Resolved—That this Association approves of the idea of the retail druggists of the country uniting themselves together in one great protective association for all general trade purposes, offensive and defensive, and recommends them to join the Universal Trade Association as a means to accomplish the end in view.

The resolution was adopted, when Prof. A. B. Stevens presented the report of the Committee on Adulterations, as follows:

ALOIN.

Much of the aloin of the market is an inferior grade, dark in color and more nearly resembling the precipitated resin than the pure aloin, which should be of a bright yellow color when powdered. In the absence of reliable tests for pure aloin, it is somewhat difficult to make an extended report upon this substance. General report affirms that it is made from Barbadoes aloes, although it is also stated to be largely made from Curacao aloes, and that the Curacao aloes after the removal of the aloin is sold as natural aloes.

SPIRITS OF NITROUS ETHER.

The Pharmacopoeia directs that freshly prepared spirits of nitrous ether shall be free from acidity and that when tested in a nitrometer shall yield not less than eleven times its own volume of nitrogen dioxide.

Your chairman examined fifteen specimens, obtained in Detroit, Toledo and Ann Arbor, with the following results: Twelve of these

specimens were strongly acid; and the three remaining were slightly so. Nos. 1 and 2 had an odor reminding one that they had at some time contained ethyl nitrite, or had been in the vicinity of a bottle having once contained it. The original sample contained in itself an amount actually insufficient for estimation.

No. 3, each Cc. of spirits of nitrous ether yielded....	0.96 Cc. of NO.
No. 4, each Cc. of spirits of nitrous ether yielded....	1.00 Cc. of NO.
No. 5, each Cc. of spirits of nitrous ether yielded....	3.00 Cc. of NO.
No. 6, each Cc. of spirits of nitrous ether yielded....	6.44 Cc. of NO.
No. 7, each Cc. of spirits of nitrous ether yielded....	6.66 Cc. of NO.
No. 8, each Cc. of spirits of nitrous ether yielded....	6.66 Cc. of NO.
No. 9, each Cc. of spirits of nitrous ether yielded....	7.00 Cc. of NO.
No. 10, each Cc. of spirits of nitrous ether yielded....	7.00 Cc. of NO.
No. 11, each Cc. of spirits of nitrous ether yielded....	7.40 Cc. of NO.
No. 12, each Cc. of spirits of nitrous ether yielded....	7.42 Cc. of NO.
No. 13, each Cc. of spirits of nitrous ether yielded....	8.00 Cc. of NO.
No. 14, each Cc. of spirits of nitrous ether yielded....	9.00 Cc. of NO.
No. 15, each Cc. of spirits of nitrous ether yielded....	9.84 Cc. of NO.

What health restoring medicinal effect can a physician procure for his suffering patient when his prescriptions are compounded with such preparations as Nos. 1 and 2? In ninety-nine cases out of a hundred the spirits of nitrous ether is kept on the shelves in large glass bottles, not half filled, and in flagrant disregard of the simplest directions of the U. S. P. I sincerely hope that we may hereby induce our pharmacy brothers to follow the Pharmacopoeial instructions to keep this unstable preparation in small, dark, amber colored vials and in a cool place well protected from the light.

HYDROCYANIC ACID.

At our last meeting a paper was presented by C. E. Barnhart, Ph. C., of the Pharmacy Class of 1894, upon "The strength of the hydrocyanic acid of the market." From the analysis of more than fifty samples it was shown that the contents of the bottles from which some of the acid had been removed were far below the required strength, while in full bottles having been protected from the light the contents were of the required strength. This is equally true at the present time. We therefore submit for your approval a method which the chairman of your Committee has introduced into the prescription department of the University. It is as follows:

A block of wood whose dimensions are 2x2½x6 inches is procured. Eight holes of sufficient size that each will accommodate a drachm homo-vial are bored in this block. The vials, filled with freshly made hydrocyanic acid, are corked, placed in the holes prepared to receive them, and the holes closed with corks. When a prescription is received requiring this acid, the acid is taken from one of the vials, and should any acid remain in the opened vial it is thrown away. This method insures fresh acid of full strength for each prescription.

B. L. Knapp, Ph. C., of the Class of 1895, analyzed the following:

SYRUP OF IODIDE OF IRON.

- No. 1, 8.57 per cent. of Ferrous Iodide and a little free iodine.
- No. 2, 10.00 per cent. of Ferrous Iodide and a little free iodine.
- No. 3, 9.35 per cent. of Ferrous Iodide and a little free iodine.
- No. 4, 9.6 per cent. of Ferrous Iodide and a little free iodine.

SYRUP OF HYDRIODIC ACID.

None were below the Pharmacopoeial requirements.

POTASSIUM BITARTRATE.

Seven samples were analyzed. Six were practically pure, containing only slight traces of chlorides and yielding about 98 per cent. of pure salt. One contained only 11.97 per cent. of pure salt, the impurities appearing principally as calcium sulphate.

POTASSIUM AND SODIUM TARTRATES.

Seven samples of this substance also were examined, the results obtained varying from 89 to 92 per cent. of pure salt, which is nearly 10 per cent. below the Pharmacopoeial requirement.

QUININE.

E. E. Washburne, Ph. C., 1895, examined the quinine of the principal manufactures. Here a most happy variation occurs, for we are permitted to report that each of the several samples analyzed was in accord with the requirements of the Pharmacopoeia.

MR. JACKMAN'S WORK.

Activity of certain Pepsins by the U. S. P. test.

- No. 1, claim 1-3000, actual strength, 1-2727
- No. 2, claim 1-3000, actual strength, 1-3000
- No. 3, claim 1-3000, actual strength, 1-1875
- No. 4, claim 1-3000, actual strength, 1-1764
- No. 5, claim 1-3000, actual strength, 1-2143
- No. 6, claim 1-3000, actual strength, 1-3000
- No. 7, claim 1-3000, actual strength, 1-3000
- No. 8, claim 1-3000, actual strength, 1-3000
- No. 9, claim 1-3000, actual strength, 1-3000

Pepsin testing is, practically, inexpensive and quite simple, yet scrupulous care must be exercised to arrive at correct results. From the above table it will be seen that four of these samples were good, one fairly good, and three about two-thirds of the strength required.

Another pure (?) pepsin, reported by Mr. Sherrard, claiming to be from 1-6000 to 1-12000 digestive strength, was found to be less than 1-100, and contains a large amount of sugar. A hasty volumetric estimation of the sugar was made without an effort to convert any milk or cane sugar into invert sugar, showing not less than 25 per cent. of grape sugar. Since the pepsin is fairly soluble, it would seem that it must consist largely of sugars or other soluble excipients.

Still another sample of pepsin, claiming to be 1-3000 according to the U. S. P. test, was found to be about 1-500, and also contained a large amount of sugar.

These pepsins, compared with a good 1-3000 pepsin, should sell at 1 to 10 cents per ounce, if fit to sell at all.

OIL OF TURPENTINE.

Sample received from E. J. Condra, Quincy, Mich.

Specific gravity .7977, instead of .855 to .870, the U. S. P. standard. No effort was made to determine the adulterant. Upon evaporation, the oil left a small residue and in solubility it agreed fairly well with the U. S. P. requirements. The adulterant may, therefore, have been another pine oil having a much lower specific gravity than the true oil of turpentine. Prof. Sadtler examined an oil of turpentine from California, said to have been obtained from the *pinus ponderosa* (heavy pine) and found it to have a specific gravity of about .6974, so that about 35 per cent. of this oil added to the true oil would give a sp. gr. agreeing with that of the sample examined.

IPECAC ASSAYS.

Nos.	Yield of Alk.	Price.
1	4.2 per cent.	1.02½
2	3.1	1.07½
3	2.897	1.15
4	2.66	1.00
5	2.44	1.00
6	2.00	1.03
7	2.00	1.00
8	1.80	.95
9	1.96	.90
10	1.96	.90
11	1.96	.90
12	1.92	.95
13	2.48	.95
14	1.96	.90
15	2.00	1.25
16	1.80	1.20
17	2.20	1.20
18	3.20	1.10
19	2.08	1.20
20	2.00	1.20
21	2.12	1.17½
22	2.20	1.25
23	2.12	1.25
24	mere trace	.82
25	2.20	2.20
26	2.08	
27	2.00	
28	2.66	
29	2.20	
30	2.04	
31	2.04	
32	2.04	
33	2.28	
34	2.08	
35	1.76	
36	3.5	
37	3.92	
38	3.25	
39	3.30	
40	1.20	
41	3.08	
42	2.95	
43	3.45	
44	2.26	
45	2.246	
46	2.1	
47	3.22	
48	2.8	
49	3.33	
50	3.1	
51	2.65	
52	3.25	
53	2.85	
54	2.66	

ASSAY OF KOLA NUTS—Dry.

Nos.	Yield of Alk.
1.....	2.11 per cent.
2.....	2.77
3.....	2.92
4.....	2.12
5.....	1.70
6.....	1.74
7.....	1.975
8.....	1.685
9.....	1.405
10.....	1.87
11.....	1.955
12.....	1.85
13.....	1.935
14.....	1.465
15.....	1.89
16.....	1.84
17.....	1.74
18.....	1.92
19.....	1.54
20.....	1.91
21.....	2.25
22.....	1.48
23.....	1.44
24.....	1.46
25.....	1.708

ASSAY OF KALO NUTS—Green.

Nos.	Yield of Alk.
1.....	2.12 per cent.
2.....	1.70
3.....	1.90
4.....	.978
5.....	1.34
6.....	1.38

ASSAY OF COCA LEAVES.

Nos.	Yield of Alk.	Price.
1	.656 per cent.	
2	.700	
3	1.117	.28
4	.9375	.16
5	.946	.20
6	1.130	.26½
7	.541	.27
8	.6875	.20
9	.620	.19
10	.550	.21
11	.515	.31
12	.825	.18
13	.535	.20

BEESWAX.

The July number of the American Druggist, Vol. 27, Page 3, contains a lengthy article by Lyman F. Kebler, Ph. C., B. S., upon "Beeswax and its adulterants." The writer reports that about one-

half the beeswax of the market is adulterated with such substances as stearic acid, rosin, paraffin, ceresin, mineral wax, with chrome yellow as a favorite coloring. The results of twenty-one analyses are given which proved that nearly all of the specimens were adulterated. For tests and method of analysis see original article.

COPAIBA.

In the same journal may be found an article by Dodge and Alcott upon "Gurgun balsam as a copaiba adulterant." They state that the use of this balsam as an adulterant for copaiba is greatly on the increase, but that it may easily be detected by the following test: Dissolve four drops of the suspected balsam in about half an ounce of glacial acetic acid and add to this from four to six drops of fresh C. P. nitric acid. If pure, the solution will be clear and colorless, or only slightly cloudy, but, if gurgun balsam be present, a purple color will be produced, varying in intensity with the amount of the adulterant present.

SENEGA.

Foreign journals report the purchase from American firms of senega root adulterated with the root of *tristeum perfoliatum* to the extent of 25 per cent. This may be easily detected by the absence of the characteristic keel of the true senega.

SAFFRON.

From the same source we learn that saffron is frequently adulterated with glucose, honey, vegetable fiber colored with fuchsine, and barium sulphate.

President: There will be an informal meeting here this afternoon, for the purpose of discussing this question of forming a corporation for manufacturing purposes. It is hoped that all who have any interest in that subject will attend. Is there any discussion on this report? If not, we will pass on to the next head, which is the selection of next place of meeting.

Mr. Anderson: In regard to this meeting this afternoon, perhaps it would be well to have it understood that this will not be a meeting of the Association. It is simply a meeting of members who come here to discuss the subject among ourselves informally, to sift it to the bottom and see what there is in it. Everybody who desires to come we want to turn out, as it is a matter of a good deal of interest to all of us, I think.

President: Is there any discussion on the report?

Dr. Ward: There is one point that the Professor made in his report, in regard to having a pure article to dispense to physicians. I tried to look over my prescriptions, as far back as possible, and I do not remember of a single instance hardly of a prescription containing spirits of nitrous ether. Almost every one I get now is for Sanmetto. If you can prescribe a test for Sanmetto probably it would be one with which we could comply.

Mr. Walker: Not long ago there was so much being said in the papers about a certain preparation containing about 85 or 90 per cent.

of glucose and scarcely anything else that I took occasion to test it. I appeared to get no result, when I tried a second test, and it responded to the glucose test, just as I expected it would. It struck me that perhaps, I had better try it on something else, and I tried it on a good many syrups—syrup hypophosphites, elixirs and different things about the store—and found in most every case that I got more or less test for glucose, except two or three preparations where I could get no reaction whatever. Of course, I am not able to say whether glucose was actually used in the preparation of those syrups or not. It struck me that, possibly, there were other things there that would interfere with my test, or it is possible that, after long standing, the syrup itself might give a test for glucose. I only mention this as something for some one to work out.

Prof. Stevens: In regard to this point about syrups and the glucose test, you should remember that it takes but a very little bit of inverted sugar to give you an idea of a glucose test—to give you a precipitate. It is difficult to tell anything about it by the coloration. Remember, also, that sugars boiled with acids are very quickly inverted and that it gives the same test as a glucose sugar. Boiling will do the same thing, of course very slowly, so that sugar made with heat may have some vegetable acid or something of that kind; so we cannot depend wholly upon a test of that kind, for, if you have a heavy precipitate, of course, that would indicate that, without doubt, there was glucose present there. But there are a great many people who have an idea that glucose syrup is better as a preservative than cane sugar, more especially substances that are easily changed, like some of the iron preparations. We do know that a great deal of the sugar or syrup on the market is not cane sugar. I remember of examining, several years ago, samples of so-called rock candy syrup—it was said to be pure rock candy—and finding it to contain a greater proportion of grape sugar—nothing but common glucose. I have forgotten the percentage, but I know the bulk of it was grape sugar, and yet it was advertised as being rock candy syrup, and as being better and keeping longer than the other. Of course, glucose will keep, there is no doubt about that.

Mr. Peck: That reminds me of a circumstance that happened not long ago. It was brought to my notice that glucose was used largely for lubricating purposes, that what was called common castor oil, lubricating castor oil, selling for 18 or 20 cents a gallon, contained a large percentage of glucose. I have tasted some of that oil, not enough to be injurious, but I have tasted a little of it, and it tastes sweet. Of course, the stuff contains no lubricating properties whatever, but it would be likely to deceive anybody who thought they were buying lubricating oil.

Prof. Stevens: I would like right here to speak in regard to this Committee on Adulterations. I do not think during the past year I

have heard a word from anybody outside as ever having run across anything that he thought was adulterated at all. It seems to me your Committee on Adulterations should have a sort of a head, as it were, and as different ones in the trade run across something that is adulterated, they should send it to some one who will have it investigated and proven. If you are going to have a Committee that is worth anything—if this report is worth anything to you at all—it ought to be backed up by the Association and not left as something that is of no importance.

Mr. Sherrard: I think that point was emphasized pretty strongly last year, and, if I remember rightly, a request was made at that time that every member should consider himself a member of that Committee, and that if he found anything coming under the category of adulterations, for him to forward it to that Committee. I understand from Prof. Stevens that no reports have been sent in, even after solicitations for such, personally, by correspondence, had been sent out. I would like to say right at this point—what, as I know from past experience—that the Committee on Adulterations has a great deal of work to do. They cannot accomplish very much, because, as a rule, each item requires a considerable amount of work, if it is carried out properly and scientifically—perhaps covering a month or several months of time—and if a few items can be sent in from each individual, or one from each individual, with a dozen individuals, the Committee can get out a nice report. If that is not done by the Association, you cannot expect to have a very voluminous report, unless you pay a man for putting in his time and doing the work.

Prof. Stevens: Mr. Sherrard was chairman of the Committee for two years and he gave us a most excellent report, putting far more time on it than I generally put upon it, and he was in a position where he could receive those things, perhaps, better than I could. My work does not usually bring me in contact with those adulterated substances, so that I am not in a position, perhaps, to receive them as I ought. I regret it very much; I think it is the one great mistake that your President made last year in making the change. That is the only thing I have against him. Now that I have the floor, I will continue the point that I brought up about reporting to the Committee. How many of you will sit around the store and "gas," as some of them tell me; why, they say they have nothing to do these summer days, as many of their customers are away at the seashore. Why don't they do something? I understand from the Committee on Queries that they sent out request after request to different ones, inviting papers. What is the result? The chairman has not received a solitary paper, outside of one, I think. Now, instead of sitting around there, why don't you do something? Why don't you get up and dust a little? Find some preparations which are adulterated and examine them, and write up something of practical value. You will come here and exhaust hours

talking about trade interests. It is a splendid card to draw, and I hope it will continue to draw, only I would like to see these other things not neglected. A few years ago Charles Rice wrote me an excellent letter, saying that he valued the proceedings of the Michigan Pharmaceutical Association, and that they had been very valuable to him for their work in revising the Pharmacopoeia, etc. What will they do this year on that subject? You must pay a little attention to the scientific part of the business, scoff at it as you will. If you are going to let the physician prescribe and everything else, and you don't know anything about the material on your shelves, and do not care to know, you cannot blame him. You must get up and make your preparations and say to the Doctor, "There is a preparation which I made myself; it is just as good as anybody else makes."

Dr. Ward: I made a proposition last year in regard to that Committee on Adulterations which was not carried out. I think it would be an eminently proper one, but I do not know how the Association might feel about it. I know that, oftentimes, I run across preparations regarding which I would like to know whether they were of the proper standard of strength or not, or whether they were adulterated; but to make those tests properly requires considerable experience and practice that a person is not putting into use every day, and where one has experience and practice in it, they can do it with a great deal more facility than one who has to take up a test for some particular substance or product which he has in stock, and get all the circumstances together and study up the details of the work. I would be very glad to have some of those things tested and I made a proposition last year that the Association appropriate a certain amount, say \$50 or so, and place that in the hands of the Committee on Adulterations, so that a person would not feel that he was putting too much work on the Committee if he had some little thing to send them. Why should I send it to take up their time for my particular benefit? That is the reason I made that proposition, and I do not see why it would not pay every pharmacist, for the very little amount that would come out of each one's pocket.

President: I think we had better limit this discussion, because the time is getting late.

Mr. Eberbach: I would like to make a remark in regard to the examination of suspected articles for adulteration. I think we have members enough in the Association that if there are enough materials furnished to the Committee, that they will find members, if the matters are presented to them, who will do it at their laboratories. We have pharmacists enough in the Association who are capable of the undertaking, if the things were brought to their notice. If any member has anything of that kind which he wishes investigated, if he does not feel able to do it himself, I think there could be ways and means found to do it—at least, I will volunteer our laboratory for one.

Mr. Walker: Just one thing, regarding soda water syrups. Prof. Stevens spoke about their containing a large percentage of glucose. I had that same idea myself. I never until this year bought any. An agent came around and wanted to sell me my syrup for the soda fountain. I said, "I don't want any of your glucose syrup." He replied that the syrup was all right, and that he would send me a sample that I might test myself. He did so and brought a little can holding a quart or less. I tested it, expecting to find glucose. I tested it the best I could, and it gave no reaction whatever for glucose. That sample of syrup I will swear was pure.

Mr. Wurzburg: I move that the selection of the time and place of holding the next meeting be referred to the Executive Committee.

Adopted.

President: The election of officers is next in order.

Mr. Wurzburg: Do the constitution and by-laws of our Association provide that the election of officers shall take place at the last session?

President: It provides that it shall take place at this session; this is the last session.

Mr. Wurzburg: Does the constitution provide for that?

President: It is left to the discretion of the Executive Committee to arrange the program for the session.

Mr. Wurzburg: It seems to me that it would be well if the Executive Committee could arrange the program a little differently. Yesterday every chair in this room was occupied; to-day we have only a handful of members here at the election of officers, and I would suggest that the Executive Committee take that into consideration hereafter and have the election of officers take place a little earlier. We usually have the best attendance at the second day's meetings.

President: That suggestion may be a valuable one. I have no doubt there are plenty of members here to-day to fill this room, if they would only come, but I am inclined to think that they pick out those things which are of interest to them, and when those subjects have been disposed of, they move out. I am afraid we would encounter that objection; still, perhaps the suggestion may be a good one.

Mr. Colman: I move that we proceed to the election of President by ballot. Adopted.

Mr. Anderson: Are there any requirements in the constitution to have any certain number present?

President: Yes, a quorum is required. I will appoint Mr. Dupont and Mr. Russell as tellers.

Mr. Peck: Before proceeding to the election of President, it seems to me it would be proper for nominations to be made, so that we will know whom we expect to vote for. The special reason why I make that remark is, because my name has been mentioned in the papers and I have also been spoken to by several members of the Association, asking me to accept the office of President, if elected. Although it may

seem bad taste to mention that fact at this time, yet I do so because I cannot serve, if elected. There are circumstances which render it impossible for me to serve, and I expect, also, to be absent from the State during the coming summer. I trust that you will all respect my request in this matter and not vote for me as President, although there is no one who would appreciate that honor more than I, because I consider it a great distinction to be President of this Association. But for the benefit of the Association it is necessary that my name should be left out altogether, as an officer is expected to be present. It would be a great responsibility for the Vice-President to have placed upon his shoulders the entire work or a great portion of it, of conducting the meetings to a successful issue, and at the same time have another individual get the credit and honor for that work. Perhaps I might not be elected, but then I thought it better to make this statement early in the season, so that every one would know my position with reference to this subject, and I therefore request that no votes be cast for me.

Tellers: We find 28 votes were cast, of which Mr. Parker received 3, Mr. Anderson 2, Mr. Colman 1, Mr. Stringer 1, Mr. Phillips 2, Mr. Wurzburg 1, and Dr. Ward 18. Dr. Ward has the highest number.

Mr. Perry: I move that this ballot be made formal.

The motion was carried and Dr. G. J. Ward was declared elected.

President: There are three Vice-Presidents to elect. We can probably elect them all at one time, First, Second and Third, if that will be in order. I presume the constitution provides that they shall be elected consecutively, but if some one will make a motion to that effect—

Mr. Wurzburg: I think it has been customary for us to elect the Vice-Presidents in that way, but, if it is necessary, I will make that motion, that we proceed to the election of three Vice-Presidents, and that the three receiving the highest number of votes shall be elected. Motion carried.

Tellers: 27 ballots were cast: Mr. Parker receives 2, Mr. Colman 5, Mr. Stevens 2, Mr. Phillips 21, Mr. Russell 3, Mr. Rice 2, M. Whitmarsh 11, Mr. Perry 2, Mr. Parkill 2, Mr. Stringer 3, Mr. Wurzburg 3, Mr. Prall 2, Mr. Price 2, Mr. Anderson 2, Mr. Eberbach 3, Mr. Walker 6, Mr. Birch 1, Mr. Webb 2, Mr. Block 1, Mr. Veach 2. Mr. Phillips receives 21, the highest; the next highest is Mr. Whitmarsh 11, and the Third Vice-President will be Mr. Walker, who received 6.

President: You have heard the report, Mr. Phillips First, Mr. Whitmarsh Second and Mr. Walker Third. What do you do with it?

Mr. Dupont: I would move that they be declared unanimously elected. Adopted.

President: You will now prepare your ballots for Treasurer.

Prof. Stevens: I move that the Secretary be instructed to cast the ballot for Mr. Dupont as Treasurer. Adopted.

President: The next will be the Secretary.

Mr. Anderson: I move that we select the Secretary in the same way.

Mr. Perry: I would nominate Mr. Schrouder, of Grand Rapids, as Secretary. Supported.

President: Are you ready for the question?

Mr. Eberbach: I move that the Secretary be instructed to cast the ballot of the Association for Mr. Schrouder, of Grand Rapids, as Secretary.

Mr. Colman: I shall vote for Mr. Schrouder—be very glad to do it, but we want to avoid anything that can be construed by anybody as looking like capturing anything, or not giving anybody a fair chance. In the case of Mr. Dupont, I think there certainly is only one voice in the Association, as we are all in favor of him, and it was a perfectly proper thing to do, I think. But there may be some difference of opinion on this matter, and a man would rather hate to vote against the main voice, who, if he were to ballot in the regular way, would vote for somebody else. I really think we should stick to the regular method of voting by ballot, especially for an officer as important as that of Secretary.

Mr. Eberbach: I withdraw my motion.

President: You will please prepare your ballots.

Mr. Peck: I wish to say that Mr. Schrouder is Secretary of the Grand Rapids Pharmaceutical Society and that he is a more satisfactory man than we have ever had before. He certainly will do good service.

Tellers: There were 26 ballots cast, of which Mr. Russell receives 1, Mr. Thompson 3, and Mr. Schrouder 22.

Mr. Eberbach: I move that the election of Mr. Schrouder be made unanimous. Adopted.

President: Prepare your ballots now for members of the Executive Committee, of which there shall be five. We will vote for the chairman first and then the other members each singly.

Mr. Colman: I would like to nominate Mr. Wurzburg for chairman of that Committee, from the fact that he is in the same town as the Secretary. It would be convenient for those two men if they could be near each other.

Mr. Wurzburg: My name has been on the proceedings for the last ten or twelve years, and I would like to see one copy of the proceedings without my name on it.

President: I will say this, that it is very convenient to have the greater portion of the Executive Committee come from that section of the State where the meeting is liable to be held. In all probability it will not be held in Detroit next year and this year it would have been very much more convenient for us if we could have gotten hold of the Executive Committee very many times when we would have liked to have done so.

Mr. Wurzburg: There are other members of this Association who live in Grand Rapids besides Mr. Peck and myself.

President: I will appoint Mr. Perry another teller, and while they are counting votes, after having voted for chairman, you will prepare your ballots for the next member of the Executive Committee and Mr. Perry can be collecting them.

Prof. Stevens: I would like to nominate my namesake, Mr. Fred. Stevens, a member of this Executive Committee.

Tellers: 25 ballots were cast for chairman of the Executive Committee, of which Mr. Schmidt receives 1, Mr. Colman 3, Mr. Wurzburg 21.

Mr. Colman moved that the election of Mr. Wurzburg be made unanimous, which was duly seconded and carried.

Tellers: For the second member of the Executive Committee 24 ballots were cast: Mr. Stringer 1, Mr. Anderson 1, Mr. Perry 1, Mr. Parker 1, Mr. Colman 3, Mr. Fred. Stevens 17.

On motion of Mr. Anderson, the vote for Mr. Stevens was made unanimous.

Mr. Todd: I nominate Mr. E. T. Webb, of Jackson, as a member of the Executive Committee.

Mr. Wurzburg: I nominate Mr. Russell, of Grand Rapids, as the fifth member of the Committee.

Tellers: 21 votes were cast, Mr. Eberbach receiving 1, Mr. Perry 1, Mr. Price 2, Mr. Colman 7, Mr. Russell 5, and Mr. A. B. Stevens 5. Mr. Colman receives the highest number.

Mr. Colman suggested that he would like to withdraw in favor of Mr. Russell, but on motion of Mr. Eberbach, which was duly carried, his election was made unanimous.

Tellers: 24 ballots cast, of which Mr. Russell receives 1, Mr. Simons, Mr. Stringer 3, Mr. Price 3, Mr. Webb 15.

A motion was then made and carried that Mr. Webb be declared unanimously elected.

Tellers: 19 votes were cast, of which Mr. Webb receives 1, and Mr. Russell 18.

President: Mr. Webb having been already elected, Mr. Russell receives a solid vote and is elected.

Election of delegates resulted in the selection of the following:

To the American Pharmaceutical Association—Dr. Albert B. Prescott, C. C. Sherrard, Geo. McDonald.

To the National Wholesale Druggists' Association—C. N. Anderson, A. S. Parker.

President: That completes the business before the Association, so far as pertains to the election of officers. All committees are appointed by the President. What is your further pleasure?

Mr. Dupont: I would like to offer a vote of thanks to the President and our efficient Secretary, also the Executive Committee, who

have done the work during the last year in such a thorough manner. Supported.

Prof. Stevens: You have heard the motion. Those in favor of extending a vote of thanks to the President, Secretary, Treasurer and Executive Committee, signify it in the usual manner. Carried.

President: I would speak to a point of order. It is customary to introduce the President-elect before adjournment. I believe that is in order at this time if there is any further business. What is your pleasure?

Mr. Dupont: It has been the rule to have our elections a little earlier, and that the President-elect closes the session; at any rate he is in the chair long enough to have a little practice.

President: I think the President-elect had better be introduced and we had better hear from him. If there is no objection, I will present your President-elect. Before retiring, your presiding officer desires to thank the members of the Association, individually and collectively, for the honor that you conferred upon him during the past year, and he desires to state that whatever he has done has been for the very best interests of the Association. Whatever shortcomings may have been his fate are entirely due to ignorance, and not to wilful desire. I thank you, gentlemen, most heartily. Your President-elect needs no formal introduction to the members of this Association. He has been a long and valued member, and he has attended all of your meetings, I think. We have always enjoyed seeing him here, and he has been an active member in the discussions and whatever business has come before the Association and I predict for him a very successful reign and sincerely hope that the members will be able to assist him by their efforts as well, for I assure you that no President can do all the work alone. Allow me to present to you Dr. Ward, of St. Clair, your President-elect.

Dr. Ward: I suppose it is in order for me to say that it is with a good deal of fear and trepidation, and some little lack of confidence in my abilities to carry out the duties of this office, that I stand here to-day, coming after so excellent a President as he who retires. But I assure you that I will do the best I can under the circumstances. The honor I appreciate, and the responsibilities I will try to bear; and I hope that every member of the Association will constitute himself a committee of one to uphold the hands of the President, to uphold the hands of your officers in all that they may undertake to do, and that each one of you will be at our next meeting, wherever it may be appointed, if it is a possible thing for you to do so. I hope, also, that you will also constitute yourselves a committee of one to bring somebody else with you, and for that person to bring some one else, and in that way we will have a successful meeting. I think that the business done here was of very great interest, not only socially and morally, but intellectually and financially. I appreciate that after every meet-

ing which I have attended, I have gone home feeling better, and have gone to my work with a good deal more zest, and that constitutes a good financial means by which we can increase our stores. I do not know that I have anything further to say, gentlemen, and I await your further pleasure.

Mr. Perry: I think that we would like to be introduced to our new Secretary.

Dr. Ward: Our new Secretary is here. I have not the pleasure of personal acquaintance with him, but shall be very happy to introduce him if he will make himself known.

Mr. Schrouder: I thank you very much for the honor you have bestowed on me in electing me to this office. When my name was first proposed, I wanted to decline, as I have enough trouble of my own to attend to and did not care much about taking on this additional burden. Another thing was, where I am well acquainted, I like to get up and have as much to say as anybody else, and I know that a Secretary does not usually have anything to say. I thank you very much for the office and I will try my best to fill it acceptably.

President: I would say that our Treasurer is so well known—our new one—that there is hardly any necessity to introduce him. We will now be glad to hear from him. We do hear from him pretty often to our sorrow, and would, no doubt, be glad to hear from him now.

Mr. Dupont: I would be very glad to address you in a manner to please you if I could. I would simply offer you my thanks for your continued compliments and for the funds invested in the treasury. When I was in the declining humor, there was considerable money in the treasury; that now the thing is reversed, the responsibility becomes less the longer you remain in office. The burden being light, I will put up with it.

Dr. Ward: Nothing else occurs to me except the appointment of the committees. I have so little knowledge of the peculiar abilities of the several members that I will defer the appointment of these committees. If I can, I will appoint them this afternoon. I would like to consult some of the older members of the Association and, if possible, I will announce the committees on the boat this evening. If not, I will notify those appointed by letter. Very unfortunately, I do not know whether I put too much lemon in my water or not, but I have been somewhat "under the weather." I am not like the Indian they tell about who was drowned one day. They had a post-mortem examination on him, and came to the conclusion that he had mixed too much water with his whisky. Probably I have not mixed enough whisky with my water, and that is the trouble.

On motion, the convention then adjourned sine die.

LIQUOR POTASSII ARSENITIS—(Fowler's Solution.)

BY GARRY W. MESSENGER.

This preparation originated with Dr. Fowler, of Stafford, England, and was intended as a substitute for the celebrated remedy known as "The Tasteless Ague Drops."

The solution of the United States Pharmacopoeia is stronger than that of the British Pharmacopoeia and the solution of the Pharmacopoeia of 1890 is stronger than that of the Pharmacopoeia of 1870, being a 1 per cent. solution of arsenous acid.

It is a potassium arsenite dissolved in water, and is formed by the combination of arsenous acid upon the bicarbonate of potassium, carbon dioxide being evolved. In the Pharmacopoeia of 1890, potassium bicarbonate is substituted for the normal carbonate, because it is more readily obtained pure.

According to M. H. Bouquet, ebullition disengages the carbon dioxide slowly, so that after four hours of boiling, it still contains 1-6 of the carbon dioxide. This accounts for the slight effervescence when hydrochloric acid is added to the solution.

The powdered arsenous acid contains calcium sulphate and arsenate, and the calcium salt sometimes as high as 25 per cent. So that after boiling, there still remains a residue. The solution should be rejected, as it will not be 1 per cent. strength. The resublimed arsenic should be powdered and used, as it is more free from calcium salts.

Arsenous acid contains small amounts of arsenic acid. The latter is not so active medicinally as the arsenous acid; hence the estimation of arsenic pentoxide.

First. The estimation of the total amount of arsenic that could exist as arsenous oxide. A lipless beaker and watch glass were weighed, then 15 Cc. of the solution were poured in and the whole again weighed. From this total was subtracted the weight of the beaker and watch glasses, to find the weight of the solution.

Five cubic centimeters of hydrochloric acid were added to acidify and 3 Cc. of nitric acid to oxidize all the arsenic to arsenic acid. This was evaporated to dryness, redissolved in 5 Cc. water and a few drops of nitric acid and again evaporated to dryness. This residue was dissolved in 20 Cc. of water, rinsed into a No. 3 beaker and ammonia added till slightly ammoniacal, cool and the arsenic acid precipitated with 20 Cc. of magnesia mixture. The mixture was occasionally stirred during the afternoon and allowed to stand over night. Filtered, washed with a dilute solution of ammonium nitrate, dried and weighed as magnesium pyro-arsenate.

Secondly. The estimation of arsenic present as such, 15 cubic centimeters of the solution were weighed in a weighing flask, rinsed into a 500 Cc. flask—3 Cc. of starch and 5 Cc. of hydrochloric acid to aid the end reactions, and titrated with N-10 solution of iodine.

Calculation: Corrected number of cubic centimeters of n-10 iodine

used multiplied by .00495, the n-10 factor of arsenic pent-oxide multiplied by 100 and divided by the weight of the sample gives the per cent.

Below are the samples with the per cents. found :

		Amount of essence as arsenous and arsenic acid.	Arsenous acid.
No. 1.	.918	per cent.	.893 per cent.
No. 2.	.898		.853
No. 3.	.8686		.8012.
No. 4.	.914		.846
No. 5.	.954		.903
No. 6.	.986		.893
No. 7.	.779		.718
No. 8.	.8516		.7077
No. 9.	.887		.813
No. 10.	.923		.889
No. 11.	.9453		.901

QUALITY OF CALCIUM SULPHIDE DISPENSED BY PHARMACISTS.

BY E. D. CAMPBELL, B. S., AND H. H. WATERS, PH. C.

The Pharmacopoeia gives directions for a test by which we may find out if the sample of calcium sulphide contains 60 per cent. available calcium sulphide. We therefore devised the following method for ascertaining the exact per cent. calcium sulphide as follows:

Take of the sample to be tested 1.80 grams (weighed on analytical balance,) place in a 500 Cc. flask, add 20 Cc. of 20 per cent. solution of sodium carbonate, heat the solution to just below boiling point for 10 minutes, cool, dilute to 500 Cc. and allow to settle. For estimation take 50 Cc. of this solution, run into a 100 Cc. flask, dilute to 700 or 800 Cc.; add a few drops of starch paste, then 10 C. of hydrochloric acid and run in n-10 iodine until end reaction.

Another method is to take 180 milligrams of sample, place in a large flask, dilute to 700 or 800 Cc. then add 10 Cc. of hydrochloric acid and titrate. The amounts taken are such that 1 Cc. of iodine solution equals 2 per cent. of calcium sulphide.

We obtained thirty-five samples of calcium sulphide from stores in Ann Arbor, Toledo and Detroit. Many of these samples were very old and showed in some cases a pale green color. Nine showed a percentage ranging between 15 and 25 per cent; ten between 25 and 35 per cent; seven between 35 and 40 per cent; five between 40 and 45 per cent; one 55 per cent.; one 53 per cent.; one 64 per cent.; and one obtained from the prescription case of the Department, showed 92 per cent. The sample had never been opened.

Following upon this work, we proceeded to manufacture a number of samples, each differing in quantity of material or the time in heating. Twelve samples were made as tabulated:

No.	Material used.	*Time of heating.	Color.	Per cent.
1	Charcoal, 12	10 minutes.	Slate	18 CaS.
	Calcium Sulphites, 68			
2	Charcoal, 18	30 minutes.	Light gray.	65 CaS.
	CaSO ₄ , 68			
3	Charcoal, 24	60 minutes.	Light gray.	87.4 CaS.
	CaSO ₄ , 68			
4	Charcoal, 30	60 minutes.	Gray.	66 CaS.
	CaSO ₄ , 68			
5	Starch, 54	45 minutes.	Pink white.	44 CaS.
	CaSO ₄ , 68			
6	Starch, 54	30 minutes.	White.	29 CaS.
	CaSO ₄ , 58			
7	Charcoal, 18	60 minutes.	Nearly white.	82.8 CaS.
	CaSO ₄ , 68			
8	Charcoal, 24	40 minutes.	Gray.	66 CaS.
	CaSO ₄ , 68			
9	Starch, 24	30 minutes.	Gray.	45 CaS.
	CaSO ₄ , 68			
10	Charcoal, 24	40 minutes.	Gray.	68 CaS.
	CaSO ₄ , 68			
11	Charcoal, 24	60 minutes.	Gray.	77.6 CaS.
	CaSO ₄ , 68			
12	Charcoal, 24	75 minutes.	Gray.	76.8 CaS.
	CaSO ₄ , 68			

In the case of No. 10 it shows that it was not heated long enough; No. 11 about the right time, and No. 12 shows that once heating reduces the per cent. calcium sulphide. In all cases of estimation the work was done in duplicate.

ANALYSIS OF COMMERCIAL VINEGARS.

BY CHAS. H. STEINCAMP, PH. C.

Vinegars are mostly made from wine, spirits, maltwort, or beer, fermented fruit juices and sugar beets. Most all the vinegar used in this country is made from apples or from wine. Cider vinegar is a yellowish brown liquid, has an odor of apples, a density of 1.013 to 1.016 and contains from 3.5 to 6 per cent. of acetic acid, and yields from 1.5 to 2 per cent. of extractives. It is distinguished from the other varieties by yielding, on evaporation, an extract smelling and tasting of baked apples, and containing malic acid, which gives a precipitate with lead acetate.

Good cider vinegar should answer the following tests:

1. Precipitate with lead acetate.
2. Give an ash alkaline in reaction.
3. Should have specific gravity of 1.013 to 1.016.
4. Should yield from 1.5 to 2 per cent. extractives.
5. Should yield from .2 to .5 per cent. ash.
6. Should give only a slight precipitate with barium nitrate, silver nitrate, or hydrogen sulphide.

*Placed in a white hot furnace.

The adulterants of vinegar are:

1. Water.
2. Mineral acids.
3. Pyroligneous acids.
4. Various organic substances, such as coloring agents.

Out of ten samples analyzed, all gave indications of being pure cider vinegar except No. 6, which gave indications of being a manufactured one. The samples were obtained from various manufacturers and dealers.

Following is a table showing the per cent. of acid, specific gravity, extractives and ash:

***CIDER VINEGARS.**

No.	Per cent. of acid.	Sp. gr.	Per cent. of extractive.	Per cent. of ash.	Lead acetate.
1	3.552	1.0107	1.24	.56	Precipitate.
2	4.22	1.015	2.86	.21	Precipitate.
3	4.74	1.0142	1.42	.177	Precipitate.
4	4.165	1.0085	1.53	.154	Precipitate.
5	3.236	1.0039	1.15	.132	Slight precipitate.
6	6.41	1.0071	1.131	.109	No precipitate.
7	4.64	1.014	1.38	.189	Precipitate.
8	4.23	1.0135	1.34	.167	Precipitate.
9	4.36	1.0137	1.35	.173	Precipitate.
10	6.06	1.016	3.11	.245	Heavy precipitate.

***WHITE WINE VINEGAR.**

1	3.473	1.005	.3	.105
2	5.49	1.007	.867	.5203

*Mineral acids—none.

Constitution and By-Laws.

Adopted at Petoskey, Michigan, July 13, 1887.

PREAMBLE.

Whereas, Organization, concert of action, and comparison of ideas are necessary to the advancement of any cause, and believing that a State Pharmaceutical Association will accomplish these objects; therefore

Resolved, That we, druggists of the State of Michigan, whose names are hereunto attached, in compliance with an act entitled, An Act to Organize the Reputable Pharmacists of the State of Michigan into an Association, to be known as the Michigan Pharmaceutical Association, approved April, 1887, do hereby organize ourselves into such Association, and adopt the following Constitution and By-laws:

ARTICLE I.

This Association shall be called the Michigan State Pharmaceutical Association.

ARTICLE II.

The object of this Association shall be to unite the reputable pharmacists and druggists of this State, to improve the science and art of pharmacy, to elevate its standard, and, ultimately, to restrict the practice of pharmacy to properly qualified pharmacists, and to promote by all legitimate means the business interests of its members.

ARTICLE III.

MEMBERSHIP.

Every pharmacist of good moral and professional standing, whether in business on his own account or employed by another, and teachers of pharmacy, materia medica, chemistry and botany, who may be specially interested in pharmacy, shall be eligible to membership.

ARTICLE IV.

OFFICERS.

The officers of this Association shall be a President, three Vice-Presidents, a Secretary, an Assistant Secretary, to be selected from the place of next meeting, a Treasurer, and an Executive Committee of five members, all of whom shall be elected by ballot at the third sitting of the regular annual meeting of the Association, and to serve until their successors are elected.

There shall also be elected a Committee on Trade Interests of seven members, who shall serve three years or until their successors are elected. Three members shall be elected in 1896, two in 1897, two in 1898, and so on in rotation.*

*As amended at the 1895 meeting.

ARTICLE V.

DUTIES OF OFFICERS.

Section 1. The President, or in his absence or inability to serve, the Vice-Presidents in their order, shall preside at all meetings of the Association, until the close of such meetings; call special meetings at the written request of twenty-five members; fill all vacancies that may occur in the offices of the Association between the annual meetings; shall present at each meeting a report of the Association, and perform such other duties as pertain to the office.

Sec. 2. The Secretary shall keep a record of all the proceedings of the Association. He shall keep a roll of the names of members, with their residence, date of admission, and any subsequent changes. He shall read all communications, conduct all correspondence of the Association, notify all members four weeks in advance of each annual meeting, at each annual meeting render a report of the duties performed by him since the last annual meeting, and in conjunction with the Executive Committee, shall superintend such publications as the Association shall direct. He shall notify members of their election; also notify members of committees of their appointment and election, and furnish each member of the committees with the names of their associates on said committees. He shall receive and collect all moneys for dues, and from all other sources, giving receipts for the various amounts, keep a correct account thereof, and pay the same to the Treasurer, taking his receipt therefor. He shall give a sufficient bond, subject to the approval of the committee. He shall file a copy of the proceedings of each annual meeting in the office of the State Board of Health, and the Secretary of State, and shall keep at least three copies in his own office.

Sec. 3. The Treasurer shall have charge of all the funds of the Association, for which he shall be personally responsible, pay all orders of the Secretary when countersigned by the President, render a full report of his transactions at each annual meeting, and report the state of the treasury when called upon by the Executive Committee. He shall give a sufficient bond, subject to the approval of the Executive Committee.

Sec. 4. It shall be the duty of the Secretary and the Treasurer to turn over to their successors, without unnecessary delay, all papers and property of the Association committed to their care.

Sec. 5. It shall be the duty of the Executive Committee to aid the local Secretary in making arrangements for the meetings of the Association, to investigate applications for membership, audit all bills against the Association, and attend to all other business not otherwise assigned.

Sec. 6. The Committee on Trade Interests shall investigate all complaints regarding trade matters made by members of this Association and take such action thereon as they may deem proper, rendering comprehensive reports at each annual meeting of the Association. The Committee shall have authority to employ a Trade Secretary, fixing his compensation, if any, and the members of the Committee shall be reimbursed for actual traveling and hotel expenses incurred in attending the meetings of the Committee or in pursuing investigations authorized by the Committee.*

*As amended at the 1905 meeting.

ARTICLE VI.

MEETINGS.

The annual meeting of this Association shall be at such time and place as the Association shall previously determine.

ARTICLE VII.

BY-LAWS.

This Association may establish for its future government and regulation, such By-laws, not in conflict with the Constitution, as may be deemed proper and desirable.

ARTICLE VIII.

AMENDMENTS.

Every proposition to alter or amend this Constitution shall be submitted in writing and received at an annual meeting, and may be voted for at the next annual meeting, when, upon receiving the votes of three-fourths of the members present, it shall become a part of this Constitution.

By-Laws.

ARTICLE I.

QUORUM.

Twelve members shall constitute a quorum.

ARTICLE II.

MEMBERSHIP.

The names of persons applying for membership, with their age, residence, present occupation, and length of experience in pharmacy, shall be presented in writing, signed by two members in good standing, to the Executive Committee, and if favorably acted upon by that committee, the candidate shall be considered elected. A vote of all the members of the Executive Committee shall be required for an election.

ARTICLE III.

FEES.

The initiation fee of this Association shall be one dollar, which fee shall accompany the application.

ARTICLE IV.

DUES.

Every member shall pay to the Secretary on or before the first day of January of each year the sum of one dollar. It shall be the duty of the Secretary to draw on all members when two years in arrears, previously sending notice of his intention to draw at a certain date. Any person neglecting to pay dues for three successive years shall forfeit membership. Dues paid by new members before an annual meeting shall apply on the present year. Those becoming members and paying dues after an annual meeting shall receive credit for the following year.

ARTICLE V.

CERTIFICATE OF MEMBERSHIP.

Each member of this Association may, if he desire, upon the payment of one dollar, receive a certificate of membership, which shall be issued by the Secretary, provided said member is not in arrears for dues.

ARTICLE VI.

COMMITTEES.

Section 1. The President shall, before the close of each annual meeting, appoint the following committees (of which he shall be an

ex-officio member), each to consist of three members: Committee on Pharmacy and Queries; Committee on Legislation; Committee on Adulterations.

Sec. 2. The Committee on Pharmacy and Queries shall report annually respecting scientific progress, discoveries and investigations during the year, and near the close of each annual meeting a proper number of questions of scientific or practical interest, and shall secure the acceptance of as many of such questions of investigation as may be practicable, to be reported upon at the next annual meeting.

Sec. 3. The Committee on Legislation shall keep a record of, and compile for reference, the enactments of the different States regulating the practice of pharmacy and the sale of medicines. They shall report, at each annual meeting of the Association, what legislation on the subject has occurred during the year, and submit such recommendations with regard to legislation in this State as shall appear to them proper.

ARTICLE VII.

SUSPENSIONS—AMENDMENTS.

Section 1. These By-laws shall not be suspended without the consent of two-thirds of the members present.

Sec. 2. Any amendment to these By-laws must be made in writing and read before the Association at one sitting, and laid over to a subsequent sitting, when, upon receiving the votes of two-thirds of the members present, it shall become a part of these By-laws.

ARTICLE VIII.

DELEGATES.

Five delegates and five alternates shall be annually elected to attend the meeting of the American Pharmaceutical Association.

ARTICLE IX.

PROCEEDINGS.

The proceedings of the Association, and the roll of officers, committees, and members shall be published annually under the supervision of an editor, who shall be elected annually, and who shall be paid from the funds of the Association, and a copy of the proceedings shall be sent to each member of the Association less than two years in arrears.

ARTICLE X.

EXPULSION OF MEMBERS.

Any member or officer accused of violating the Constitution or By-laws, or other improper conduct, may be expelled or removed from office by a two-thirds vote of all the members at a regular meeting. In every case definite charges must be preferred in writing, to which shall be affixed the names of not less than three members of the Association, and the Secretary shall send the accused person a copy of the charges, and notify him in writing, at least two weeks in advance, of the time when his case will come up for hearing, offering him an opportunity to be heard in his own defense.

ARTICLE XI.

EXHIBITS.

The Association invites manufacturers and others to exhibit at the annual meetings, crude drugs, chemicals, pharmaceutical prepara-

tions, and such objects as possess a general scientific or special pharmaceutical interest.

ARTICLE XII.

RULES OF ORDER—ORDER OF BUSINESS.

Section 1. The Rules of Order of this Association shall be those in common use in deliberative assemblies, and such special rules as may be adopted by the Association.

Sec. 2. The order of business shall be such as the Executive Committee shall prescribe.

The Pharmacy Law.

AN ACT

To regulate the practice of pharmacy in the State of Michigan.

Act No. 134, Laws of 1885:

Section 1. The People of the State of Michigan enact, That the Governor, with the advice and consent of the Senate, shall, within thirty days after the passage of this act, appoint five persons and annually thereafter one person from among such competent pharmacists in the State as have had ten years' practical experience in dispensing physicians' prescriptions, who shall constitute the Michigan Board of Pharmacy. The term of office of said five persons shall be so arranged that the term of one shall expire on the thirty-first day of December of each year, and all appointments made thereafter shall be for the term of five years.

Sec. 2. The said board shall, within thirty days after its appointment, meet, and organize, by election of a President and Secretary, from its own members, who shall be elected for the term of one year, and shall perform the duties prescribed by the board. It shall be the duty of the board to examine all applications for registration submitted in proper form; to grant certificates of registration to such persons as may be entitled to the same under the provisions of this act; to investigate complaints and to cause the prosecution of all persons violating its provisions; to report annually to the Governor, and to the Michigan Pharmaceutical Association upon the condition of pharmacy in the State, which said report shall also furnish a record of the proceedings of the said board for the year, and also names of all pharmacists duly registered under this act; the board shall hold meetings for the examination of applicants for registration, and the transaction of such other business as shall pertain to its duties, at least once in four months, said meetings to be held on the first Tuesdays of March, July and November in each year; shall make By-laws for the proper fulfillment of its duties under this act, and shall keep a book of registration in which shall be entered the names and places of business of all persons registered under this act, which book shall also specify such facts as said persons shall claim to justify their registration. The records of said board, or a copy of any part thereof, certified by the Secretary to be a true copy, attested by the seal of the board, shall be accepted as competent evidence in all courts of the State. Three members of said board shall constitute a quorum.

Sec. 3. The Secretary of the board and the treasurer thereof, if such separate office be created, shall receive a salary which shall be fixed by the board; they shall also receive the amount of their travel-

ing and other expenses incurred in the performance of their official duties. The other members shall receive the sum of three dollars for each day actually engaged in this service, and all legitimate and necessary expenses incurred in the performance of their official duties. Said salaries, per diem, and expenses, shall be paid from the fees received under the provisions of this act. All moneys received in excess of said per diem allowance, and other expenses above provided for, shall be paid into the State treasury at the end of each year, and so much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof, if, in any year, the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the Board of State Auditors, and to the Michigan Pharmaceutical Association, of all moneys received and disbursed by it pursuant to this act.

Sec. 4. Every person who shall, within three months after this act takes effect, forward the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State at the time this act takes effect, in the preparation of physicians' prescriptions, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist: Provided, That in case of failure or neglect to register as herein provided, then such person shall, in order to be registered, comply with the requirements provided for registration as a licentiate in pharmacy hereinafter described.

Sec. 5. No person other than a licentiate in pharmacy shall be entitled to registration as a pharmacist, except as provided in Section Four. Licentiates in pharmacy shall be such persons, not less than eighteen years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the board a fee of three dollars: Provided, That in case of a failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within one year. The said board may grant certificates of registration without further examination to the licentiates of such other boards of pharmacy as it may deem proper upon a payment of a fee of two dollars.

Sec. 6. The said board may grant, under such rules and regulations as it may deem proper, at a fee not exceeding one dollar, the certificate of registered assistant to clerks or assistants in pharmacy not less than eighteen years of age, who, at the time this act takes effect, shall be engaged in such service in this State, and have been employed or engaged two years or more in the practice of pharmacy; but such certificate shall not entitle the holder to engage in such business on his own account, or to take charge of, or act as manager of, a pharmacy or drug store.

Sec. 7. Each registered pharmacist, or registered assistant, who desires to continue the practice of his profession shall annually, after the expiration of the first year of his registration, during the time he shall continue in such practice, on such date as the board of pharmacy may determine, pay to the said board a registration fee to be fixed by the board, but which shall not exceed one dollar for a pharmacist, or fifty cents for an assistant, for which he shall receive a re-

newal of said registration. Every person receiving a certificate under this act shall keep the same conspicuously exposed in his place of business. Every registered pharmacist, or assistant, shall, within ten days after changing his place of business or employment, as designated by his certificate, notify the Secretary of the board of his new place of business. If any pharmacist or registered assistant shall fail or neglect to procure his annual registration, or to comply with the other provisions of this section, his right to act as such pharmacist or assistant shall cease at the expiration of ten days from the time notice of such failure to comply with the provisions of this section shall have been mailed to him by the Secretary of said board.

Sec. 8. All or any registration obtained through false representations shall be void, and the board of pharmacy may hear complaints and evidence, and may revoke such certificates as it may deem improperly held.

Sec. 9. Any proprietor of a pharmacy who, not being a registered pharmacist, shall, ninety days after this act takes effect, fail or neglect to place in charge of such pharmacy a registered pharmacist; or any such proprietor who shall by himself, or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines, or poisons, in his store or place of business, except by, or in the presence and under the supervision of, a registered pharmacist, or except by a registered assistant; or any person not being a registered pharmacist who shall take charge of, or act as manager of, such pharmacy or store, or who, not being a registered pharmacist or registered assistant, shall retail, compound, or dispense drugs, medicines, or poisons; or any person violating any other provision of this act to which no other penalty is herein attached, shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than ten nor more than one hundred dollars, and in default of payment thereof, shall be imprisoned not less than ten days nor more than ninety days, or both, such fine and imprisonment in the discretion of the court.

Sec. 10. Nothing in this act shall apply to, or in any manner interfere with, the business of any practicing physician who does not keep open shop for retailing, dispensing, or compounding of medicines and poisons, or prevent him from supplying to his patient such articles as may seem to him proper; nor to the vending of patent or proprietary medicines by any retail dealer who has been in such business three years or more; nor to the selling by any person of drugs, medicines, chemicals, essential oils, and tinctures which are put up in bottles, boxes, or packages, bearing labels securely affixed, which labels shall bear the name of the pharmacist or druggist putting up the same, the dose that may be administered to persons three months, six months, one year, three years, five years, ten years, fifteen years, and twenty-one years of age, and, if a poison, the name or names of the most common antidotes: of copperas, borax, blue vitriol, saltpetre, pepper, sulphur, brimstone, paris green, licorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, glycerine, Glauber salts, epsom salts, cream tartar, bi-carbonate of soda, sugar of lead, and such acids as are used in coloring and tanning; nor to the selling of paregoric, essence of peppermint, essence of ginger, essence of cinnamon, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits of camphor, number six, sweet spirits of nitre, laudanum, quinine and all other preparations of cinchona bark, tincture of aconite, and tincture of iron, compound cathartic pills, or

quinine pills, nor to the exclusively wholesale business of any dealer: Provided, that every person who shall within three months after this act takes effect forward to the board of pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, in the preparation of physicians' prescriptions, three years next previous to the second day of June, 1885, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist. And provided further, That the said board may grant, at a fee not exceeding one dollar, to such person not less than sixteen years of age who shall pass a satisfactory examination touching his competency before the board of pharmacy, the certificate of registered "assistant," but such certificate shall not entitle the holder to engage in business on his own account or to take charge of, or act as manager of, a pharmacy or drug store.

Sec. 11. No person shall add to or remove from any drug, medicine, chemical, or pharmaceutical preparation, any ingredient or material, for the purpose of adulteration or substitution, which shall deteriorate the quality, commercial value, or medicinal effect, or which shall alter the nature or composition of such drug, medicine, chemical, or pharmaceutical preparation, so that it will not correspond to the recognized tests of identity or purity. Any person who shall thus wilfully adulterate or alter, or cause to be adulterated or altered, or shall sell or offer for sale, any such drugs, medicine, chemical, or pharmaceutical preparation, or any person who shall substitute, or cause to be substituted, one material for another, with the intention to defraud or deceive the purchaser, shall be guilty of a misdemeanor, and be liable to prosecution under this act. If convicted, he shall be liable to all the costs of the action, and for the first offense be liable to a fine of not less than ten dollars nor more than one hundred dollars, and for each subsequent offense a fine of not less than twenty-five dollars nor more than one hundred and fifty dollars. On complaint being entered, the board of pharmacy is hereby empowered to employ an analyst or chemist, whose duty it shall be to examine into the so-called adulteration, substitution or alteration, and report upon the result of his investigation; and if said report shall be deemed to justify such action, the board shall duly cause the prosecution of the offender, as provided in this act.

Sec. 12. The senior pharmacist of every house dispensing and compounding medicines, registered under this act, shall be exempt and free from all jury duty in the courts of this State.

Sec. 13. All acts and parts of acts in conflict with the provisions of this act are hereby repealed.

Approved June 2, 1885.

IN MEMORIAM.

Theodore H. Hinchman, who, for nearly sixty years was one of Michigan's foremost men, died after three months' illness at his home in Detroit, May 12, 1895.

Mr. Hinchman was born in Morris county, New Jersey, March 6, 1818, and shortly after, with other members of the family, removed to New York, where he attended the public schools until 13 years of age. At the age of 13 he was placed in a retail drug store, where he remained about a year. He then obtained a more lucrative position in the wholesale commission and grocery house of Johnson & Sons, South street. In the spring of 1836 he was offered, and accepted, a situation in Detroit as clerk in the drug and grocery store of Chapin & Owen. In 1838 the senior member of the firm (Mr. Chapin) died, and in 1842 Mr. Hinchman was admitted as partner in the firm of J. Owen & Co. In September, 1842, he was married to Miss Louisa Chapin, daughter of the late senior partner.

Mr. Hinchman became a member of the Michigan State Pharmaceutical Association in 1888 and has held many offices in the Association, much to the advantage of the organization, being an earnest and active worker. He was loved and respected by all who knew him and his decease is a sad loss to the Association as well as to his relatives who survive him.

Mr. Hinchman left four children, two daughters, Miss Mary and Mrs. Herbert L. O'Brien, and two sons, John M. Ford, D. C., and Charles C., who were for many years his business associates.

QUERIES.

1. What are the best methods of advertising the prescription department?
2. Is it advisable, also practical, for a pharmacist to call upon the physicians with samples of the products of his laboratory?
3. Would a strict enforcement of our Pharmacy Laws decrease the number of pharmacies?
4. Are tablet triturates a detriment or a benefit to the pharmacist?
5. Barbadoes aloes being the principal source of aloin, is that article (Barbadoes aloes) now found upon the market valueless?
6. It is reported that mixtures of Cinchonidinae and Quinine are being sold for Quinine. What is the cause of this adulteration, and who is responsible?
7. Does the use of Fluid Extracts in so many working formulas of the Pharmacopoeia denote progression or retrogression?
8. What preparations might be considered desirable additions to the next revision of the Pharmacopoeia?
9. Will it be advisable to introduce new remedies in the next revision of the Pharmacopoeia?
10. Is it necessary that the drug store should be open all day Sunday?
11. Is the thin green wild cherry bark really more valuable, therapeutically, than the older and thick brown bark?
12. Do all the well-known brands of Quinine Sulphate conform to the tests of the U. S. P. 1890?
13. What percentage of the so-called Essence of Pepsin on the market contains sufficient quantity of the true digestive ferment to aid digestion and assimilation?
14. What is the quality of Calcium Sulphate dispensed by pharmacists?
15. Why is it Pond Strychnine Sulphate has not the same effect on lower animals as the Cryst. Strychnine Sulphate?
16. Is Alexandria Senna superior to Tinnevely Senna?
17. Examine and report upon the Quinine pills and capsules put upon the market by different manufacturers. Do they contain the claimed amount of Quinine Sulphate, and do any of them contain Cinchonidine or other adulterations?
18. What is the quality of Oil of Peppermint found upon the market?
19. What is the relative value of Guarana and Kola nut as to their content of caffeine?
20. Is the formula for making Syr. Ferri Iodide in the 1890 Pharmacopoeia better than the 1880?
21. What is the chemical formula for Solution of Subsulphate of Iron? Is it variable, as stated in the U. S. P.?
22. What is the condition of the lard oil of the market?
23. What is the condition of the Castor oil?

A. B. STEVENS,
C. C. SHERRARD,
DORIAN M. RUSSELL,
Committee on Pharmacy and Queries.

LIST OF MEMBERS.

Adams, H. M., Port Huron.....	1888
Aisenman, Wolf A., Oklahoma City, O. T.....	1891
Akey, J. V., 114 S. Spring St., Los Angeles, Cal.....	1885
Allen, A. W., 410 Grand River Ave., Detroit.....	1883
Allen, Chalmers P., West Bay City.....	1891
Allen, Harris Edson, Morenci.....	1892
Almendinger, Charles G., Williams, Davis, Brooks & Co., Detroit	1894
Amberg, Isaac, Battle Creek.....	1886
Anderson, C. N., 95 Woodward Ave., Detroit.....	1888
Anderson, Ellery, Midland.....	1884
Anderson, Moxson, Midland.....	1884
Atchison, F. E., Gladwin.....	1888
Atkinson, Jr., Henry, Michigamme.....	1894
Babbington, John, Corunna.....	1884
Bachman, M. H., Stanton.....	1883
Bailey, Dr. John R., Mackinac Island.....	1890
Bailey, M. G., Mackinac Island.....	1888
Baker, H. G., Nelson, Baker & Co.....	1888
Bannister, John L., 201 S. Washington St., Saginaw, E. S.....	1890
Barber, M. A., Petoskey.....	1887
Barie, H. L., 535 Macomb St., Detroit.....	1887
Branard, Wm. Dwight, 427 River St., Manistee.....	1891
Barrows, J. F., Lawrence.....	1885
Bassett, A., 95 Woodward Ave., Detroit.....	1884
Bassett, J. A., 201 N. Washington St., Ypsilanti.....	1885
Beach, L. F., Bay City.....	1884
Beacham, C. B., Romeo.....	1884
Beebe, G. C., 100 Harrison St., Bay City.....	1890
Beeden, Bert N., Williams, Davis, Brooks & Co., Detroit.....	1889
Bell, John, Lexington.....	1888
Belsher, W. E., East Saginaw.....	1884
Bertram, J. P., Westphalia.....	1883
Bigelow, W. H., Corunna.....	1884
Blackmer, H. A., Charlotte.....	1884
Blair, C. A., Morenci.....	1884
Blakeslee, L. G., Detroit.....	1885
Bliss, Lyman W., Saginaw.....	1890
Boden, Edwin T., 319 Washington St., West Bay City.....	1890
Bogart, Frank A., 193 Trumbell Ave., Detroit.....	1890
Borradaile, Fred'k H., Detroit.....	1892
Bostick, Charles H., Manton.....	1892
Botsford, E. S., Dorr.....	1886
Bower, J. E., Crystal Falls.....	1887
Bower, Jr., Reuben T., Petoskey.....	1891
Boynton, Oliver C., Port Huron.....	1890
Brackett, F. E., Cheboygan.....	1887

Bradshaw, John P. H., Davison	1894
Breitenbach, A. P., Champlain & Shindaw Sts	1889
Bristol, F. E., Lapeer	1884
Bristol, N. D., Lapeer	1884
Brooks, Alanson S., Williams, Davis, Brooks & Co., Detroit	1890
Bross, C. M., Jerome	1889
Brown, D. D., Kalamazoo	1885
Brown, H. J., Ann Arbor	1883
Brown, J. J., Okemos	1883
Brundage, F., Muskegon	1886
Buchanan, B. F., Harrisville	1883
Bugbee, C. A., Charlevoix	1885
Burdick, H. H., 611 E. Midland St., West Bay City	1884
Burley, David H., Almont	1890
Burwell, R. G., 2339 Gratiot Ave., Fort Gratiot	1884
Caldwell, J. W., 242 Grand River Ave., Detroit	1888
Calkins, E. E., Ann Arbor	1884
Carney, M. S., Decatur	1885
Chamberlin, G. T., Hartford	1883
Chandler, C. A., Cambria	1884
Church, H. M., Holly	1883
Church, Wm. D., Parke, Davis & Co., Detroit	1889
Clark, A. B., Gobleville	1889
Clark, A. G., White Cloud	1883
Clark, H. C., Detroit	1888
Clark, J. K., Blissfield	1884
Clark, S. B., Flint	1890
Claxton, W. C., Calgary Alberta, N. W. T., Canada	1885
Coe, Thomas D., Romeo	1884
Cohoe, Adolph, Capac	1890
Colman, G. E., Lake Ann	1885
Coleman, Sheldon, 1017 Douglas Ave., Kalamazoo	1893
Coleman, H. G., Kalamazoo	1884
Colwell, Dr. C. B., Jackson	1886
Conrad, J. F., Otsego	1886
Cook, Charles E., 912 Van Buren St., Bay City	1884
Cooper, I. S., Cheboygan	1885
Cornell, David A., Copemish	1892
Cosford, Dr. J. W., Mancelona	1887
Craft, C. V., 505 Saginaw St., Flint	1890
Crawford, J. B., Detroit	1885
Cress, Edward A., Minden City	1890
Crispe, John, Plainwell	1886
Crouter, G. W., Charlevoix	1883
Crowley, J. J., 421 Michigan Ave., Detroit	1884
Culver, Dr. R. W., South Haven	1886
Cummer, R. J., 1116 Payne Ave., Cleveland, O	1884
Curran, E. S., St. Joseph	1883
Currie, A. A., St. Clair	1885
Curtis, C. A., Petoskey	1885
Cushman, H. D., Three Rivers	1884
Cutler, W. R., Ionia	1883
Darling, G. S., Tawas City	1888
Davis, Geo. S., Parke, Davis & Co., Detroit	1888
Davis, Jas. E., Williams, Davis, Brooks & Co., Detroit	1884
Dayton, A. J., 74 Wealthy Ave., Grand Rapids	1887
Dein, H. M., Niles	1887
Dendel, W. H., Hopkins Station	1892
Dennis, G. C., Rochester	1888
DePuy, C. E., Stockbridge	1888

Dewey, C. C., Napoleon.....	1885
Dewitt, P. A., Spring Lake	1888
Dillon, James E., East Tawas.....	1887
Dodd, I. Leroy H., Buchanan	1884
Dorman, Charles, Elkton	1890
Dorrance, A. A., Coldwater	1883
Dunlap, Thomas, South Lyon.....	1884
Dupont, William, 182 Michigan Ave., Detroit..	1883
Dorr, F. W., 142 12th St., Detroit	1895
Dunbar, W. L., Parma.....	1895
Eberbach, O., Ann Arbor	1883
Elfbrandt, Henry, Negaunee.....	1890
Fairchild, H. B., Grand Rapids.....	1886
Farrand, Jr., J. S., Detroit	1888
Fanckboner, Orin A., 429 East Bridge St., Grand Rapids.....	1890
Fay, O. J., Carleton.....	1888
Fenton, A. W., Bailey	1886
Fenton, George L., Kingsley.....	1885
Fildew, A. S., St. Johns.....	1884
Fincher, F. W., Pentwater	1883
Fisk, C. A. E., Petoskey.....	1885
Foote, C. E., Jackson	1886
Fordham, M., Elmira	1885
Fordham, W. W., Elmira	1884
Forsyth, Edward L., Kalamazoo.....	1891
Foster, Albert, Benton Harbor.....	1890
French, C. S., Hillsdale.....	1888
Frenzel, G. S., Mayville.....	1889
Fritz, T. H., Cass City.....	1885
Fuqua, C. B., Paris.....	1891
Furniss, John C., Nashville.....	1891
Gardner, Grant G., North Star.....	1893
Gates, Dr. T. O., East Tawas.....	1884
Gerow, J. E., Ovid	1883
Gidday, Fred'k K., Farrand, Williams & Clark, Detroit.....	1892
Gill, W. J., Beacon.....	1884
Gladwin, H. L., Merrill.....	1888
Glazier, F. P., Chelsea	1885
Gleason, E. G., Richmond	1884
Goodrich, L. A., Hillsdale	1884
Graham, A. B., 411 Woodward Ave., Detroit.....	1893
Grandy, Francis, Fairfield.....	1885
Griffith, W. F., Ionia	1883
Grossman, Wm., 1218 Court St., Saginaw, W. S.....	1890
Grunow, O. H., 182 Gratiot Ave., Detroit	1884
Gundrum, George, Ionia	1883
Hackett, P. E., Wolverine.....	1886
Haeussler, G. J., Manchester	1885
Haines, Edwin J., Duroy & Haines, Sandusky, O	1890
Hale, H. G., Nashville.....	1883
Hall, W. A., Greenville.....	1884
Hamilton, Jerome D., M. D., Paw Paw.....	1892
Harper, J. C., Milan	1884
Hart, Austin P., Mulliken	1891
Harwood, G. M., Petoskey	1884
Harwood, Henry, Ishpeming.....	1885
Hawkins, A. H., Clayton.....	1888
Hayes, Newland, 818 Forest Ave., W., Detroit.....	—
Hayes, J. A. (Ph. G.), 98 Williams St., New York.....	1895
Heffernan, Thomas, Baldwin.....	1895

Hessler, Will, 17 W. Bridge St., Grand Rapids	1883
Hessler, W. F., Rockford	1895
Hicks, C. F., Pontiac	1891
Hicks, Charles V., Oscoda	1891
Hicks, W. H., Morley	1883
Hinchman, C. C., 76 Jefferson Ave., Detroit	1885
Hinchman, J. M., 76 Jefferson Ave., Detroit	1888
Hodges, F. A., Parma	1888
Hopkins, F. S., Benton Harbor	1888
Hopkins, I. F., Muskegon	1884
Hubert, John H., Saginaw, E. S.	1890
Hueston, G. C., Northville	1885
Hunt, A. O., St. Johns	1885
Hunt, Dewitt H., St. Johns	1888
Hurd, A. E., Davison Station	1884
Hutchins, Lee M., Detroit	1890
Hutchinson, Barzilla S., Lyons	1892
Hutton, R. J., 425 Antoine St., Detroit	1885
Hyde, A. O., Marshall	1883
Inglis, Frank, Detroit	1883
Ingram, F. F., Detroit	1891
Jack, G. T., Detroit	1890
Jackman, W. F., 287 Michigan Ave., Detroit	1888
Jones, H. Otis, New Buffalo	1895
Jones, M. A., Marquette	1888
Johnson, J. G., Traverse City	1884
Johnson, O. C., Ann Arbor	1884
Johnson, Sterry A., Ogden Center	1890
Johnson, William C., 120 W. Congress St., Detroit	1888
Judson, F. E., Brighton	1883
Kelly, F. H., Au Sable	1884
Kemink, Theo., 81 W. Leonard St., Grand Rapids	1884
Kennedy, T. B., Commerce	1886
Kenyon, W. W., Howell	1884
Kephart, H., Berrien Springs	1883
Kingsley, John, M. D., Manistee	1889
Kirchner, J. S., 609 Congress St., E., Detroit	1895
Kirkwood, P. B., Negaunee	1885
Knill, Jr., H. C., Port Huron	1888
Koon, C. S., Muskegon	1885
Lacroix, Jos. J., Bay City	1890
LaRue, C. M., West Bay City	1885
Law, Dr. W. J., Leroy	1889
Leland, N. P., 430 West King St., Owosso	1886
Lentz, Theo., Campbell Ave. and River St., Detroit	1885
Lever, Henry, M. D., Newaygo	1884
Leyerer, Geo. S., Bay City	1890
Lipsinski, Julius, 156 Gratiot, Detroit	1895
Little, A. F., Aarwood, Kalkaska Co	1885
Luce, Jr., W. O., Caro	1885
Lyman, A. H., Manistee	1883
Lyman, Dr. M. R., Gagetown	1891
Lyon, L. W., 722 St. Aubin Ave., Detroit	1895
McCullough, Edward P., care Fred. D. Stevens, Detroit	1890
McDonald, D., Kalamazoo	1884
McDonald, D. T., Red Jacket	1883
McDonald, Geo., Kalamazoo	1885
McEvoy, J. E., Manistee	1883
McFarland, A., 693 Michigan Ave., Detroit	1883
McGee, Thos. H., 417 Court St., Saginaw, W. S.	1891

McKenna, J. D., Shepherd.....	1884
McKevitt, H. D., Grand Rapids.....	1895
McKibbin, R. S., 322 Fort St., W., Detroit.....	1888
McMullen, G. H., Ionia.....	1883
MacKimmie, G. D., 29 Jefferson Ave., Detroit.....	1888
Main, James I., Tekonsha, Calhoun County.....	1895
Mann, Albert, Ann Arbor.....	1883
Mann, Chas. F., 845 3d Ave., Detroit.....	1888
Martin, A., Imlay City.....	1884
Martin, Henry, Jackson.....	1884
Martin, Susie A., Holland.....	1885
Mason, C. A., Flint.....	1885
Mason, G. B., Saline.....	1883
Mason, J. F., Warren.....	1888
Matthews, George McD., Chase.....	1891
Maxson, M. M., Hudson.....	1885
Mayer, F. W., Sebewaing.....	1884
Meseroll, D. C., Jackson.....	1884
Mesick, H. J., Plainwell.....	1886
Miller, Archie T., Swartz Creek.....	1890
Miller, H. J., Vassar.....	1885
Millikin, T. J., St. Clair.....	1884
Millspaugh, Martin Benedict, 98 North Union St., Grand Rapids.....	1890
Moore, John, Ann Arbor.....	1884
Moore, Lon. G., cor. Michigan and Gratiot Aves., Saginaw, W. S.....	1890
Morris, H. M., 919 Grand River Ave., Detroit.....	1888
Morris, S. S. Pinconning.....	1888
Morrish, N. D., Sault Ste. Marie.....	1895
Morrison, A. W., Constantine.....	1885
Muir, J. D., Grand Rapids.....	1886
Nasmyth, P. F., 388 Baker St., Detroit.....	1888
Nelson, E. H., Nelson, Baker & Co.....	1884
Newell, C. P., Flushing.....	1884
Niver, Mrs. W. H., Chesaning.....	1888
Nugent, W. A., Alpena.....	1891
Nutt, E. C., Cheboygan.....	1890
Orr, J. J., Tecumseh.....	1884
Osborne, G. A., Luther.....	1887
Packard, Homer H., Cheboygan.....	1890
Palmer, Dr. Henry, St. Johns.....	1889
Parker, A. S., 747 Woodward Ave., Detroit.....	1883
Parker, O. J., Howell.....	1889
Parkill, S. E., Owosso.....	1883
Passage, J. H., Greenville.....	1886
Pasternacki, Chas. L., 779 Hastings St., Detroit.....	1895
Patenaude, A., Norway.....	1887
Patterson, B. M., 238 Randolph St., Detroit.....	1885
Pauly, L., St. Ignace.....	1887
Peck, A. W., Petoskey.....	1883
Peck, J. E., Grand Rapids.....	1885
Peckham, H. C., Freepport.....	1885
Pegg, H. D., Morenci.....	1884
Perham, J. T., Kent City.....	1888
Perry, D. B., West Bay City.....	1883
Perry, Fred R., 304 E. Midland St., West Bay City.....	1893
Perry, F. W. R., 709 Woodward Ave., Detroit.....	1883
Pettitt, Charles E., Bad Axe.....	1890
Phelps, L. A., Saugatuck.....	1888
Phillips, E. F., Armada.....	1883
Phillips, F. S., Ogden.....	1884

Phillips, H. S., Carson City.....	1888
Phillips, W. R., Battle Creek.....	1883
Pierson, L. R., Des Moines, Ia.....	1888
Pike, N., Morley.....	1888
Potter, Frank P., Allegan.....	1892
Powell, A. H., Gladstone.....	1890
Power, J. O., Addison.....	1884
Prall, D. E., East Saginaw.....	1883
Pratt, G. O., 723 Antoine St., Detroit.....	1884
Prescott, A. B., Ann Arbor.....	1883
Price, Fred. R., Sault Ste. Marie.....	1895
Price, Geo. A., Spring Lake.....	1892
Prosser, H. H., Flushing.....	1895
Purvis, G. S., 983 Jefferson Ave., Detroit.....	1885
Raizon, Dr. Jas., Enid, O. T.....	1888
Ray, G. C., West Bay City.....	1885
Raymo, Owen, Wayne.....	1888
Raynale, Frank B., Detroit.....	1891
Reidy, Mike, Corunna.....	1884
Remus, Wm., Pontiac.....	1892
Reynolds, Linton E., 503 Michigan Ave., Lansing.....	1890
Rheinfrank, J. P., Detroit.....	1894
Richmond, Dr. T. W., Bear Lake.....	1888
Richter, Louis J., Saginaw, W. S.....	1895
Riggs, Miles E., Cheboygan.....	1891
Ringler, Eugene, 111 S. Hamilton St., Saginaw.....	1884
Ripley, L. G., Montague.....	1884
Roberts, D. O., Kalamazoo.....	1887
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Rodenbaugh, J. N., Mancelona.....	1886
Rogers, E. J., Port Huron.....	1884
Roeser, Otto W., Saginaw, W. S.....	1890
Rogers, A., Ravenna.....	1888
Roscoe, Fred., 916 Water St., Bay City.....	1894
Rothacher, Jacob W., 720 Gratiot Ave., Detroit.....	1892
Ruossin, V., Ludington.....	1884
Rudolphi, A. E., Dowagiac.....	1886
Runner, J. W., Shelby.....	1886
Russell, Dorian M., 166 W. Bridge St., Grand Rapids.....	1892
Russell, Elsworth E., Jackson.....	1890
Sackett, S. M., Monroe.....	1883
Safford, O. P., Flint.....	1883
Sawyer, R. J., Menominee.....	1883
Schlotterbeck, Julius O., Ann Arbor.....	1890
Schmidt, Walter Karl, 84 Canal St., Grand Rapids.....	1892
Schott, A. A., East Saginaw.....	1888
Schröder, Benj., 209 E. Bridge St., Grand Rapids.....	1892
Schultz, L. S., St. Joseph.....	1885
Schumacher, A. C., Ann Arbor.....	1887
Scott, Dr. H. J., Seney.....	1890
Seeley, C. A., 218 S. Washington Ave., Lansing.....	1888
Selleck, Robert W., Flint.....	1890
Shaffer, John M., Gladwin.....	1889
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Sherwood, C. L., Dowagiac.....	1884
Shook, D. L., Coral.....	1884
Siebert, G. M., Iron Mountain.....	1883
Sigler, F. A., Pinckney.....	1885
Simoneau, Leander, Saginaw, E. S.....	1890
Simoneau, Richard T., Saginaw, E. S.....	1890

Simpson, Floyd D., Flint	1891
Sloan, E. E., Clarkston	1885
Smith, C. F., Clarkston	1883
Smith, Chas. E., Pontiac	1891
Smith, Fletcher, Saginaw	1883
Smith, Frank W., Hillsdale	1891
Smith, Samuel R., 225 S. Division St., Grand Rapids	1892
Spayde, W. H., Bloomingdale	1886
Speckhard, Adolphus O., Watersmeet	1891
Spencer, J. L., Linden	1883
Spencer, M. Ella, Linden	1884
Sprague, W. G., Flushing	1883
Stafford, Edward O., Marquette	1890
Stafford, Jos., Newberry	1890
Stanton, H. N., Sheridan	1885
Stanton, M. B., Sheridan	1885
Stearns, Fred'k K., Detroit	1891
Steinkohl, Fred'k, Manchester	1889
Stevens, A. B., Ann Arbor	1883
Stevens, F. D., 133 Woodward Ave., Detroit	1883
Stoeckly, Louis, Iron Mountain	1891
Stone, C. G., Detroit	1884
Stover, H. E., Kalkaska	1886
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Stringer, G. W., 898 Michigan Ave., Detroit	1884
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Tepoorten, Frank A., Bay City	1890
Thompson, Frank A., Parke, Davis & Co.	1889
Thum, Hugo, Grand Rapids	1884
Tilton, B. E., Bay City	1885
Todd, A. M., Kalamazoo	1887
Tomlinson, A. E., Saginaw, W. S.	1890
Tomlinson, W. A., Au Sable	1884
Treat, A. B., Adrian	1884
Tubbs, C. C., Chesaning	1883
Tupper, F. L., Meredith	1885
Turner, Dr. R., Flat Rock	1886
Tuttle, W. A., Holly	1883
VanBochove, R., 445 Lyon St., Grand Rapids	1886
Vandecar, J. H., North Branch	1883
VanEmster, F. H. J., Bay City	1885
VanLeeuwen, W. H., 327 Fountain St., Grand Rapids	1885
VanMarter, Ezra J., 428 East Main St., Jackson	1884
VanOstrand, Edward T., Allegan	1893
VanSickle, Clarence E., St. Johns	1892
VanVranken, G. D., Cadillac	1885
Varnum, E. C., Jonesville	1884
Varnum, G. C., Jonesville	1884
Vaughan, B. D., 219 Superior St., Albion	1884
Vaughan, Wm. H., Alpena	1890
Vedder, E. H., cor Midland & Walnut Sts., W. Bay City	1885
Veitch, Arthur, Mayville	1890
Vernor, James, 235 Woodward Ave., Detroit	1884

VonWalthausen, Werner, 1345 Johnson St., Bay City.....	1884
Wagner, C. H., Big Rapids.....	1883
Waite, S. E., Traverse City.....	1884
Walker, A. L., 411 Woodward Ave., Detroit.....	1888
Walker, J. David, East Saginaw.....	1891
Walker, W. K., Lansing.....	1883
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Warren, W. M., 210 E. Congress St., Detroit.....	1888
Watson, J. B., Coopersville.....	1884
Watz, H. G., Saginaw.....	1884
Webb, B. S., Alma.....	1886
Webb, E. T., Jackson.....	1885
Webb, H. J., Cassopolis.....	1888
Webber, A. H., Cadillac.....	1884
Weeks, A. A., Grand Rapids.....	1887
Weeks, Eugene, Jackson.....	1890
Weeks, Jas. E., Battle Creek.....	1889
Weiss, J., Monroe.....	1888
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Wendover, W. V., 1473 Woodward Ave., Detroit.....	1895
Wetzel, H. A., 902 Jefferson Ave., Detroit.....	1888
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Wilber, C. H., St. Ignace.....	1887
Wilders, A. J., Ortonville.....	1885
Wilkins, F. C., Union City.....	1885
Williams, J. P., Climax.....	1888
Williams, R. P., Care of Farrand, Williams & Clark, Detroit.....	1888
Williams, W. C., Care of Williams, Davis, Brooks & Co., Detroit.....	1884
Williamson, John, Detroit.....	1884
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Witherspoon, P. E., Harrison.....	1885
Wolcott, John M., Grand Rapids.....	1892
Wolfinger, C. E., Hopkins Station.....	1884
Wood, Wm. A., Six Lakes.....	1888
Wood, Will H., Sheridan.....	1887
Woods, C. H., 524 Grand River Ave., Detroit.....	1888
Wooton, Austin B., Morenci.....	1892
Wright, Chas., 15 Jefferson Ave., Detroit.....	1883
Wright, C. A., Tecumseh.....	1884
Wurzburg, F. J., Grand Rapids.....	1884
Yeomans, E. T., Ionia.....	1883
Young, E. A., Clio.....	1886

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Jesson, Jacob, Anaheim, Cal.....	1894

ELIXIR OF THE PHOSPHATES OF IRON, QUININE AND STRYCHNINE.*

BY A. B. STEVENS, PH. C., AND G. A. DOTY, PH. C.

Owing to its instability when exposed to the light, or when permitted to stand for a length of time, the elixir of the phosphates of iron, quinine and strychnine has always given pharmacists more or less trouble in its manufacture. In attempting to surmount this difficulty, various formulas have been introduced, many of which have been the result of numerous combinations without definite knowledge of the actual cause of the decomposition. In order to study the subject intelligently, eight of the principal formulas were selected and an elixir prepared according to each.

The page following gives a tabulated statement of the constituents used in their manufacture.

*This paper was received too late to appear in regular order.

Era, vol. XII No. 5, p. 203 Heller.	Proceedings of Am. Phar. Assn. for '93 vol. 41 Steker.	Mr. Caspa- ri's Formula.	Report Re- vision of the U. S. Phar. to the Con. of '80, p. 39.	Report of N. F. Com.'s proceedings of Am. Phar. Assn. for '93, vol. 41, p. 47.	Era, Dec 15, '94. Rouillon	Luther Stevens' for- mula	N. F. Com- mittee's formula modified.
Boric acid.....					192 grs		
Ammonium carbonate.....		142 grs.					
Quinine.....	64 grs.	128 grs.	85 grs.	128 grs.			128 grs.
Quinine sulphate.....	128 grs.				128 grs.		
Strychnine.....	1 1/4 grs.	1 1/4 grs.	1 gr.	1 1/4 grs.			1 1/4 grs.
Strychnine sulphate.....					1.5 grs.	1 1/4 grs.	
U. S. P. Phosphate of Iron.....	256.	256 grs.		256 grs.	256 grs.	256 grs.	256 grs.
Pyrophosphate of Iron.....			256 grs.				
Ammonium Phosphate.....					128 grs.		
Syrup.....	2 fl. ozs.	6 fl. ozs.					2 ozs.
Glycerine.....						2 fl oz 120 m	
Aromatic Elixir.....	q. s. to 1 pt.	q. s. to 1 pt.	10.5 fl. ozs.	q. s. to 1 pt.	12 fl. ozs.	11.5 fl. ozs.	q. s. to 1 pt.
Alcohol.....	2 ozs	5 0/16 s.	9.4 drs.	2 ozs.	1 oz.	1.5 fl. ozs.	2 ozs.
Citric acid.....		15 grs.			256 grs.		
Citrate of Potash.....						32 grs.	
Phosphoric acid, 95 per cent.....		30 m					
Acetic acid, 36 per cent.....		450 grs.					
Comp. Spts. of orange.....	100 m.						
Ammonium hydrate.....	q. s.	If neces'y.					
Quinine hydrochlorate.....						128 grs.	

Of these preparations, those containing citrates or citric acid, other than that contained in the iron salt, were precipitated in from one to three weeks, with the single exception of one which contained a comparatively large amount of glycerine.

These were then subjected to different physical tests with the results noted below:

No.	Kept in dark closet 90 days.	Exposed to strong sunlight.	Kept at temp. of 10 deg. C.	Kept in diffused light 60 days.
1	No change	Dark color	No change	No change
2	Precipitated in 8 days	Precipitated in 1 day	Precipitated in 2 days	Precipitated in 5 days
3	Precipitated in 2 days			Precipitated in 1 day
4	No change	Precipitated in 2 days	No change	No change
5	No change	Precipitated in 1 day, light colored liquid	No change	No change
6	Precipitated in 13 days			Precipitated in 11 days
7	No change	Precipitated in 2 days	No change	No change
8	No change	Precipitated in 4 days, dark colored liquid	No change	No change

In order to determine the composition of the deposits, the precipitate was removed from one of the bottles, washed with water, dried at a temperature of 90 deg. C. and treated with hot alcohol. Applying the ordinary qualitative tests, the solution was found to consist of quinine citrate, and the small residue insoluble in alcohol consisted of phosphate of iron. The deposit was then subjected to a quantitative analysis in order to determine the relative qualities of citric acid and quinine. A weighed quantity of the dried deposit was placed in a small beaker and heated in alcohol over a water-bath. The solution was then filtered through counterpoised filters, washed and the residue of phosphate of iron dried and weighed. The citric acid was estimated by titrating with an n-10 potash solution. After the estimation of the acid, the contents of the beaker were evaporated on a water-bath to remove the alcohol, the residue was treated with dilute hydrochloric acid, the solution made alkaline with potash and shaken out with a sufficient quantity of ether to remove the alkaloid. The ethereal solution containing the quinine was then evaporated, the residue dried at 50 deg. C. and weighed. Duplicate analyses were made of the deposit in elixir No. 2, and the precipitate, in this case consisting of small white disk-like crystals, was found to consist of 1.39 per cent. of phosphate of iron, 25.34 per cent. of citric acid and 74.02 per cent. of quinine. Therefore it is probable that the precipitate consisted of the normal citrate of quinine, as the per cent. of quinine and citric acid found very closely agrees with the per cent. of each in the theoretical formula, which, according to Mandalin, is as follows: 72.99 per cent. of quinine and 28.61 per cent. of citric acid.

In a thesis written upon this subject by Mr. J. D. Fromm in 1893, and appearing in the proceedings of the American Pharmaceutical Association for 1893, the author found that the precipitate examined by him consisted of the acid citrate of quinine, so that it is evident that, under slightly different conditions, different citrates of quinine are formed in the elixir.

The following is the formula for the elixir, which, because of its failure to precipitate in most of the above tests, has proved itself to be the most stable of the preparations examined :

Phosphate of iron.....	256 grs.
Quinine.....	128 grs.
Strychnine.....	1¼ grs.
Alcohol.....	2 fl. ozs.
Hot water.....	2 fl. ozs.
Syrup.....	2 fl. ozs.
Aromatic elixir q. s. to	16 fl. ozs.

Dissolve the phosphate of iron in the water and add the syrup.

Dissolve the alkaloids in the alcohol by the aid of heat. Add to this 8 ozs. of aromatic elixir. Add this solution to that of the iron, and finally add enough aromatic elixir to make 1 pt.

ERRATA.

Since the first forms of the proceedings were printed, President Ward has added Mr. D. M. Russell to the Committee on Pharmacy and Queries.

On Page 17, ninth line from bottom of page, "Committee on Trade Interests" should read "Executive Committee."

To the Members of the Michigan State Pharmaceutical Association.....

Having decided to ask assistance from manufacturers to enable you to issue the proceedings of the convention to be held in Detroit, immediately, with the inducement that the publication is valuable as an advertising medium, we are glad to avail ourselves of the opportunity, but we would add that to be of value as an advertising medium it becomes necessary for the members of the Association to assist us in the distribution of our manufactures, Plasters, Surgical Dressings and other specialties, by keeping them in stock and pushing them where practicable. It is necessary in making purchases from your jobber to specify Seabury & Johnson, and to reject any substitutes that may be offered to you, should the jobbers not have them in stock, by immediately returning them and demanding what you ordered. Our manufactures are acknowledged as the standard quality all the world over, and should not be charged higher prices than those of inferior manufactures.

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Xanthoxylum,	4 gr.
Stillingia,	16 gr.
Phytolacca Root,	16 gr.
Cascara Amarga,	16 gr.
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Dose — Two teaspoonfuls (8 c.c.) 3 times a day, gradually increased to a tablespoonful if required.

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Containing 1 per cent. Absolute Hydriodic Acid.

An admirable substitute for the Saline Iodides; of service wherever Potassium Iodide is not tolerated; employed in all cases where Iodine is indicated.

Dose— $\frac{1}{2}$ to 2 fluid drachms (2 to 8 c.c.)

Hematic Hypophosphites

(Syrup Hypophosphites compounded with Quinine, Strychnine and Manganese.)

Each fluid ounce contains Potassium Hypophosphite, $1\frac{1}{4}$ grains; Manganese Hypophosphite, 1 grain; Strychnine Hypophosphite, $\frac{1}{16}$ grain; Iron Hypophosphite, $1\frac{1}{4}$ grains; Calcium Hypophosphite, 1 grain; Quinine Hypophosphite, 7-16 grains.

Dose—1 to 2 fluid drachms (4 to 8 c.c.)

Write for quotations by the gallon or pound. We can save you money.

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Grand Rapids, Mich.

F. J. WURZBURG.... 58 MONROE ST.



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Wholesale  Retail **DRUGGIST**

ESTABLISHED 1846.

"SWEET CHIMES"

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Absolutely THE BEST Perfume Made.

Order of Your Jobber

MADE ONLY BY

FRENCH, CAVE & CO.,

PHILADELPHIA.

\$4 Per Pint with 1 Doz. 10c size FREE



LICORICE

HIGHEST AWARDS

Centennial Exposition, Philadelphia,	1876
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Stick Licorice { 4, 6, 8, 12, 14 and 16 sticks to the
pound. Packed in 5 lb. wood
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Licorice Lozenges { In 5 lb. Tin Cans
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Powdered Extract Licorice { In 25 and 50 lb.
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Powdered Licorice Root, In convenient packages

Ammoniacal Glycyrrhizin (Sugar of Licorice),
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The Mellor & Rittenhouse Co.

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THE reason **Tanglefoot** is so universally sold by druggists is because it is perfect.

The druggist is expected to handle the best of everything and generally does.

The druggist knows that he can rely upon **Tanglefoot**, that it will please his trade.

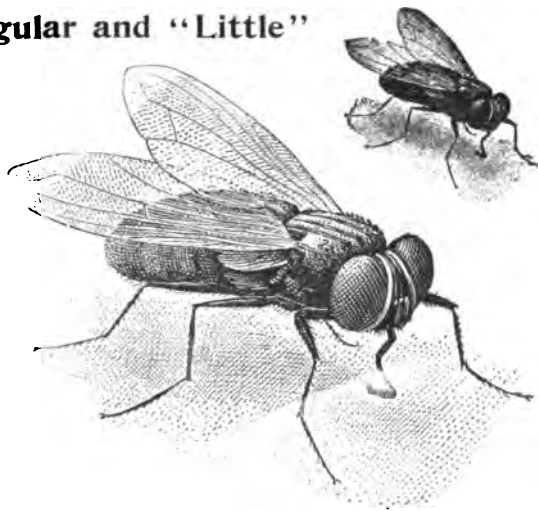
He also knows that **Tanglefoot** does not spoil if properly kept; that any he has left over he can bring out again the next season and find it salable.

He realizes that **Tanglefoot** is always up to date; that it embodies all improvements suggested by long and successful experience.

Regular and "Little"



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Every
Wholesale
Druggist
in
The
Country.



"FROG IN YOUR THROAT"

We never get tired of talking about "Frog in Your Throat." Neither should you.

You don't—those of you who take hold of it right; and to take hold of it right is to double your trade. Our book, "How to Dress Show Windows" (free), tells you how to take hold of it.

We used to say "Perfect soda is your best advertisement if you are situated right." But the amazing results from "Frog in Your Throat" seem to make it your best advertisement; better than soda, better than a 'palatial' fountain, better than any kind of store fixtures; and every druggist can take it up.

It is not a method dependent on any "if," but a positive, sure, proved success. It is as sure as a machine to bring you money and increase your business, and make you the most talked of man in your town and neighborhood—if a machine could be made to do all this. Such a machine you would buy at any price. "Frog in Your Throat" you can buy anywhere so cheap that the price seems ridiculous, considering what it will do.

Mr. Christy, of Pittsburg, Pa., is a wide-awake druggist who knows a good thing when he sees it; he sold 2448 boxes of "Frog in Your Throat" in **fifteen** weeks. How's that for a quick seller? Mr. Christy says, "Notwithstanding the hard times of 1894 (and business was nigh unto death in Pittsburg), my business exceeded that of any previous year"—all through "Frog in Your Throat."

Mr. Anderson, of Port Jervis, New York, has kept no record of his sales, but he and his store are the talk of the whole county; not the town only, the county. People come from miles around to see. Mr. Anderson and his store are to Orange County to day what the World's Fair was to Chicago in '93:—all through "Frog in Your Throat."

Mr. Roberts, of Croydon, London, sold 9 gross in 5 weeks; his sales of other goods, sundries, etc., show an increase of \$460 during the first two weeks of his window display over the same period of the previous year:—all through "Frog in Your Throat."

Another druggist (the writer cannot recall his name or town) told Mr. C. L. Ambler, one of our salesmen, that "Frog in Your Throat" was his salvation. We don't mean that it saved his life—his business. And his gratitude took the very substantial and acceptable form of a box of Huyler's candies for Mrs. Ambler and a box of Havana cigars for Mr. Ambler at Christmas:—all through "Frog in Your Throat."

We could tell you the story of another druggist who was elected to Councils by "Frog in Your Throat;" and a hundred others equally interesting; but here we are near the end of our page; not enough room left to tell you about our Family Medicines and Fruit Juices.

It is not too late to take up "Frog in Your Throat" now; two good months left this season; but bear this in mind: if you want to start a 'business boom' with a big "B" next fall, you can do it with "Frog in Your Throat." We'll tell you how. Take your time. No hurry.

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IMPORTERS AND JOBBERS OF

Drugs, Chemicals and Patent Medicines,

Dealers in Paints, Oils and Varnishes. Sole agents for the Celebrated Swiss Villa Prepared Paints. Full line of Staple Druggists' Sundries. We are sole proprietors of Weatherly's Michigan Catarrh Remedy. We have in stock and offer a full line of

Whiskies, Brandies, Gins, Wines, Rums.

We sell Liquors for medicinal purposes only. We give our personal attention to mail orders and guarantee satisfaction. All orders shipped and invoiced the same day we receive them. Send a trial order.

Hazeltine & Perkins Drug Co., Grand Rapids,
Mich.

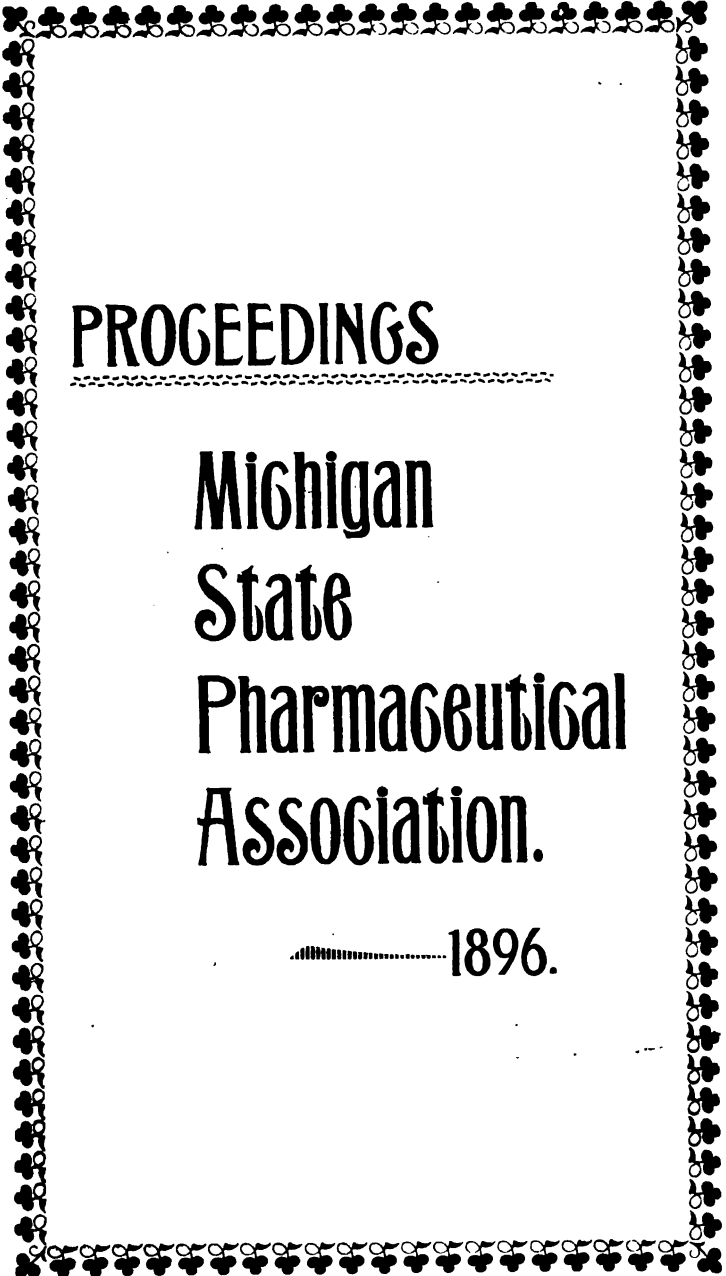


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S. C. W.

Ahead of you and far ahead of anything on the market in nickel Cigars.
\$35. Ask your jobber, or send \$1.75 for sample box of 50, postpaid, to

G. J. JOHNSON,
 Grand Rapids, Mich.



PROCEEDINGS

Michigan
State
Pharmaceutical
Association.

.....1896.

Hazeltine & Perkins Drug Co.

IMPORTERS AND
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Drugs, Chemicals AND *Patent Medicines.*



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Celebrated Swiss Villa Prepared Paints. Full line of
Staple Druggists' Sundries. We are sole proprietors
of Weatherly's Michigan Catarrh Remedy. We
have in stock and offer a full line of

WHISKIES, BRANDIES, GINS,
WINES, RUMS.

We Sell Liquors for Medicinal Purposes Only.

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satisfaction. All orders shipped and invoiced the same
day we receive them. Send a trial order.

Hazeltine & Perkins Drug Co.,
GRAND RAPIDS, MICH.

PROCEEDINGS

of the

Fourteenth Annual Meeting

of the

MICHIGAN STATE

Pharmaceutical Association

HELD AT

Mackinac Island, August 4, 5, and 6, 1896.

★★★★

GRAND RAPIDS, MICH.
BENJ. SCHROUDER, Secretary.
1896.

WEST MICH.
PRINTING COMPANY,
GRAND RAPIDS,
MICH.



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E. F. Phillips..... Armada

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A. H. Webber..... Cadillac
Dr. J. R. Bailey..... Mackinac Island
J. E. Main..... Tekonsha

SECRETARY.

Benj Schrouder..... Grand Rapids

TREASURER.

Chas F. Mann..... Detroit

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A. H. Webber..... Cadillac
H. G. Colman..... Kalamazoo
Dr Geo. J. Ward..... St. Clair
Prof A. B. Stevens..... Ann Arbor
F. W. R. Perry..... Detroit

Standing Committees 1896-97

TRADE INTERESTS.

For Three Years.

C. N. Anderson..... Detroit
J. K. Clark..... Blissfield
O. Eberbach..... Ann Arbor

For Two Years.

F. J. Todd..... Detroit
S. E. Parkill..... Owosso

For One Year.

D. E. Prall..... Saginaw, E. S.
Fred R. Price..... Sault Ste Marie

PHARMACY AND QUERIES.

Prof. A. B. Prescott..... Ann Arbor
Prof. A. B. Stevens..... Ann Arbor
F. A. Thompson..... Detroit

LEGISLATION.

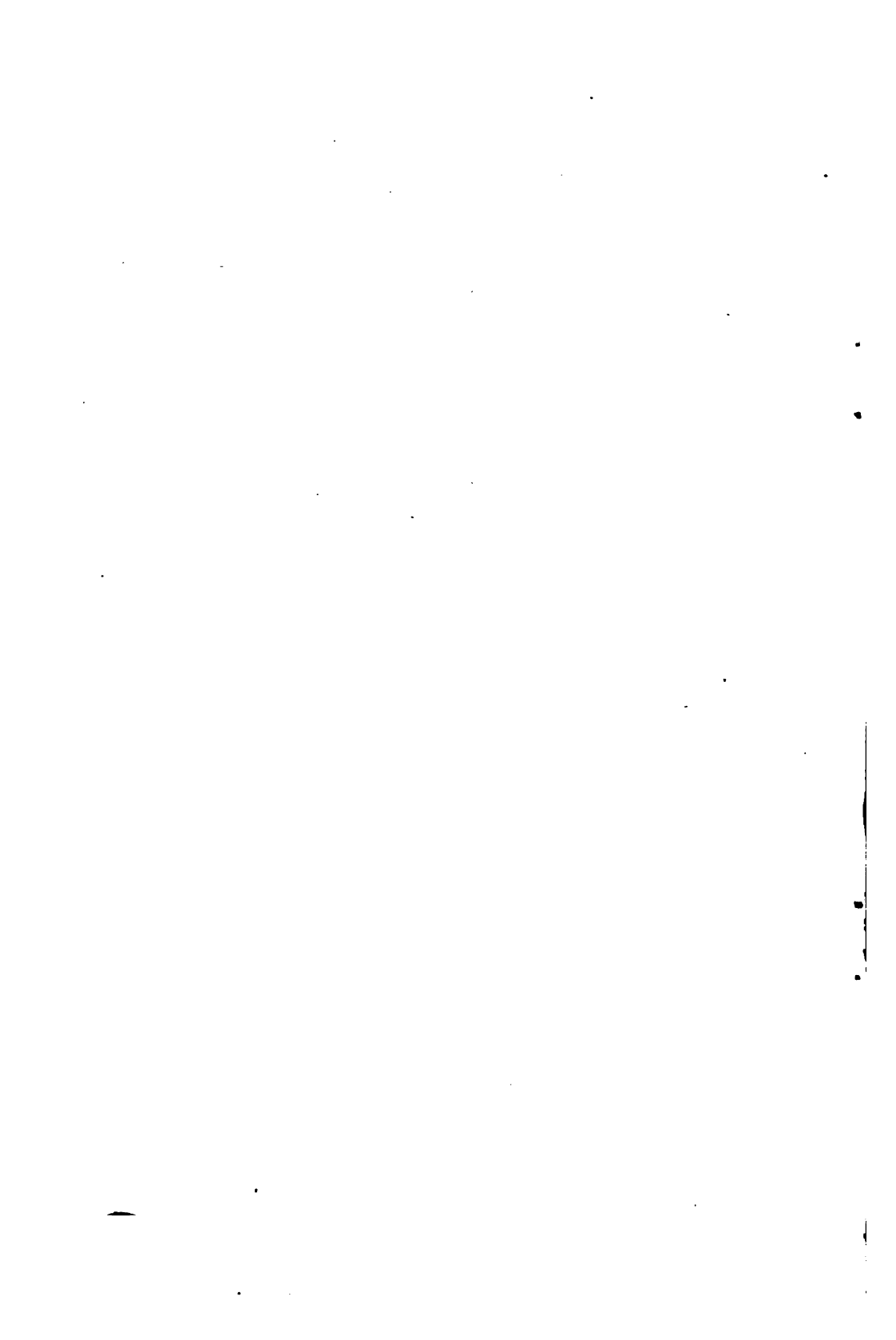
A. S. Parker..... Detroit
H. J. Brown..... Ann Arbor
Jas. Verner..... Detroit

ADULTERATIONS.

C. C. Sherrard..... Detroit
O. Eberbach..... Ann Arbor
D. M. Russell..... Grand Rapids

Delegates to the National Wholesale Druggists' Association.

W. D. Church..... Detroit
F. J. Todd..... Detroit



PROCEEDINGS
OF THE
Michigan State Pharmaceutical Association,

HELD AT

Mackinac Island, August 4, 5 and 6, 1896.

The meeting which was about to be called to order on Tuesday morning, August the 4th, was by request of all members present postponed until the following morning at 10 o'clock, to await the arrival of other members who were late in coming.

FIRST SESSION.

The first session of the fourteenth annual meeting was called to order by President Ward at 10 a. m., Wednesday, August 5th, who opened the meeting as follows: "The time having arrived when we are about to meet again in regular session for the fourteenth time, I take pleasure in calling this meeting to order and introducing to to you his honor, the President of the Village of Mackinac Island, Robert H. Benjamin. (Applause.)

Mr. Benjamin then arose and addressed the convention as follows:

GENTLEMEN AND MEMBERS OF THE MICHIGAN STATE PHARMACEUTICAL ASSOCIATION:—In the name of the people of Mackinac village, I bid you welcome. Your association, in choosing Mackinac village as your place of meeting, have chosen well. It is one of the oldest and most historic spots within the confines of our beloved State. Hallowed memories of the past confront us at every point in and around this beautiful Island, and are now recorded in song and story. Your Association, I am given to understand, is young in years, but its purposes and aims are laudable, and these annual meetings of your Association mean much to its members in the way of mutual help, mutual encouragement for each in his own way. May this meeting of yours be not only a profitable one to each and every member of your Association, but may it be a pleasant one, and may each of you go away carrying with you thoughts of pleasures you have enjoyed, and be glad you have been with us. I again bid you welcome, and extend to you the freedom of our village, and all the beauties and pleasures this Island affords.

President—"We have heard the eloquent words of welcome that

have just been spoken, and I take great pleasure in calling on Mr. H. G. Colman, of Kalamazoo, to make a reply."

Mr. Colman responded as follows :

MR. PRESIDENT AND MAYOR BENJAMIN:—It is with great pleasure that I respond to your cordial welcome in behalf of this Association. I could not have found another body to represent whom I would represent more gladly than the Michigan State Pharmaceutical Association, and only regret that I cannot respond more acceptably to the welcome you so kindly extended to us this morning. We chose Mackinac Island because of its historical record and picturesque scenery. We have all heard the story of old Michilimackinac told many times by our forefathers, and you are right when you say it has an extensive and interesting history. I now realize, after having traveled this beautiful Island, that it has been rightly termed "The Fairest Spot on God's Green Earth." Another reason we chose Mackinac as our place of meeting this year was to meet once more a little nearer to our brother druggists of Northern Michigan, although geographically speaking we all know that this Island is practically the center of the State, considering the fact Michigan has two peninsulas.

I am sorry to note, Mr. Mayor, that the attendance today is not larger, and I assure you, Mr. Mayor, you need have no fear of anything at all dangerous as the result of this convention. We, as an association and as druggists, are a very serious lot of men. We stand between the people and the physicians, and it is our business to protect our patrons and see that the physician does not run him too rapidly to the undertaker. (Applause.) And that is, I mean to say, if we happen to get a prescription which we do not know for sure whether it calls for an ounce or drachm, we have to use our judgment in determining which it is. We have to be careful. Our physicians are exceedingly busy men and do not always write legible prescriptions.

Again thanking you, Mr. Mayor, in behalf of the Association, for your cordial welcome here, I promise you that we shall do all in our power to honor the place by our conduct. (Applause.)

President—"Mr. Phillips is present. I wish he would please take the chair."

(Vice-President Phillips takes the chair.)

Chairman—"Gentlemen, the next in order will be the President's address. We will now listen to him."

GENTLEMEN:—Members of the Michigan State Pharmaceutical Association, more than another year has rolled by and we again meet as an Association, and in accordance with the usual custom it becomes my duty as your President to render an account of my stewardship. In some respects this is a pleasant duty, principally because it marks the near approach of the time when I shall be relieved of my responsibilities, for although the duties of the office are not at all arduous, still as the representative head of an Association of this kind one feels a certain degree of responsibility, and knowing my own faults and failings, I am fearful that I may not attain the mark expected of me, and although I have done as well as I could, I know and you know that there is much which might have been done which has been left undone. But my shortcomings have not been those of inclination, but of ability and opportunity.

Through an oversight in making out last year's program, instead of the officers being elected as per Article IV of the Constitution, at the third sitting of the regular annual meeting, it was not done until the last sitting. I was therefore unable to appoint the committees before the close of the meeting, as contemplated in Article V of the By-Laws, and having been called home suddenly just after the adjournment I could not do it as I intended before the members had dispersed. However, after consultation with some of the members and much correspondence, I appointed the committees as published in the proceedings, and I trust that we shall have some good reports from them.

Since the publication of the proceedings of our last annual meeting I received a communication from Clay W. Holmes, secretary of the Section on Commercial Interests of the A. Ph. A., requesting me to appoint a member for Michigan on the National Committee on Trade Interests and Local Organization, in accordance with a resolution passed by said committee at its Denver meeting. I appointed F. W. R. Perry, of Detroit, who kindly accepted and expressed himself as in entire sympathy with the objects of that committee and promised to render all the assistance in his power to forward its designs.

I also had the pleasure of appointing Prof. A. B. Prescott, of Ann Arbor, as a delegate to the Minnesota State Pharmaceutical Association, which met at Lake Minnetonka June 16, 17, 18, and many of you have probably read the very interesting address he delivered on that occasion, as it has been published in several pharmaceutical journals, and if he is present at this meeting he will probably have something to tell us regarding his visit.

There are several matters of a practical nature which I would like to present for the consideration of the Association and would urge that some action be taken regarding them.

I think that at each meeting of the Association preceding the bi-ennial session of the State Legislature the pharmacy law should be carefully discussed and measures taken to bring about any changes which might be thought advisable. It is important, also, that our Committee on Legislation should keep an eye on such measures as may be introduced effecting the interests of pharmacy, and there should be a fund placed at their disposal for the purpose of taking such action as they might deem necessary.

With regard to the Committee on Trade Interests, which is a very important one, not much can be accomplished without some means. In Mr. Anderson's excellent report of last year from that Committee, a recommendation was made to have a paid Secretary for that Committee, and, although the Committee was organized as recommended in that report, no provision was made regarding a Secretary's pay. In fact, very little effective work can either be asked or expected of our Committee, which is to be done mostly for the benefit of the Association or the whole drug trade of the State without some remuneration, sufficient at least to cover expenses. I have no doubt there are many capable members who are willing to give part of their time and labor in the interests of the rest, but it would be asking too much to have them pay their own expenses. Knowing this to be the case, and realizing the advantages to be derived from effective organization and the means to carry out the plans of the Association, it seems to me that there is scarcely a druggist in the State who could do less than contribute a dollar annually to the funds and thus place it on a firm basis.

Another suggestion I would like to make is this: As most of the

members of the Association know little or nothing of what matters will be brought for discussion at the annual meeting until the meeting convenes, except that some question like that of price-cutting (which is perennial), would it not be a good plan for the several committees, or any member of the Association who wishes, to file with the Secretary, previous to the publication of the program, a synopsis of such matters as they intend to present at the meeting. This the Secretary could publish in the program, each member could thus have an opportunity to think it over and prepare for discussion, and thus, perhaps, create an interest which would bring the members out to the meetings.

Although much of the business which comes before us at our meetings is formulated and presented by its Committees, I would like to call your attention to some matters of interest not only to this Association, but to pharmacists generally. The study of problems (I may call them business and professional pharmaceutical problems) and their discussion in the pharmaceutical press have been of much interest to me, and my ideas regarding them and their solution may be of interest to you. They are not new and my plan for their solution may not accord with your own, but a candid discussion of them can not but result in good.

In accordance with the generally accepted law of evolution, the present is but an outcome of the past, the future a result of present conditions. In my review of the drug business, in accordance with this law, I can only touch on the most salient points.

If we look far enough backwards into the dim and distant past we find that the doctor, the druggist and the manufacturer were then merged in one and the same individual. The medicine man collected, prepared, dispensed and afterward administered his own *materia medica*; but, with the growth of the healing art, a separation took place into two distinct classes, that of physician, whose principal business it was to study the character of diseases and the application of remedies to their alleviation and cure, and that of the apothecary, whose principal business it was to collect and prepare the remedies for the physician's use and dispense the same when called for; but within more recent times, through the advancement which has been made in chemical science, the refinement of modern pharmacy, the cheapening effects of labor-saving machinery and other minor causes, the old-fashioned apothecary has become almost an extinct species, and we have the proprietary medicine manufacturer and the manufacturing pharmacist; so that the retail pharmacists or druggists have to a great extent become merely vendors of manufactured goods, and what little in the way of manufacturing is done by them is often short cuts, even in pharmacopoeal preparations. So multitudinous have become the different products, preparations, medicines, and various articles of various kinds which are put upon the market, that we can hardly keep posted regarding their names, not to say anything about their composition and character. A brother druggist remarked to me a short time ago that when we were not acquainted with any article which was called for we could go to the Dispensary and look it up; but now we had to have a complete pile of price lists and patent medicine almanacs.

The process of the change does not stop here, and the tendency of the physician is to deal directly with the manufacturer, and general dealers in other lines to sell drugs and medicines and other articles which have heretofore been mostly confined to the drug trade, and generally at reduced prices; so that the question of the hour is getting to be "Where will we come in" to meet these changed and

changing conditions? Several courses are advocated. Some advise the pushing of side lines, entering into competition with other kinds of business and giving the drug store a general character, thus bringing to the front the business side of pharmacy; others advise that we ourselves become manufacturers and put up our own proprietary medicines and preparations, and they give facts and figures to prove that the competent pharmacist can prepare and sell most of the articles used by the physician just as well and much cheaper than the larger manufacturer. Still others advise that the druggist of the future be educated in medicine and fit himself to give advice and do an office practice, claiming, with a good deal of reason, that if the conditions of things are such that the physician can be educated to practice pharmacy, the pharmacist can be educated to practice medicine. All these methods are being placed upon trial, but what the pharmacist of the future will be, who can tell?

The proper course to be pursued, so far as each individual druggist is concerned, is a matter to be decided for himself and depends upon his education, predelections and surroundings: but, so far as the whole drug trade is concerned, it is a matter open for discussion and action which can be best done by association. The pharmacy law which we have requires that the druggist shall be competent to perform the duties which he undertakes; but, to my mind, there are not sufficient restrictions placed upon the sale of dangerous and deceptive drugs and medicines. A study of the laws of European countries will show that they are much more rigid in this respect than we are, but the tendency in this direction is becoming much more manifest in this country, as is instanced in the amended pharmacy laws of Illinois.

Respecting the attitude of the individual druggist towards the so-called patent and proprietary medicine trade, like the question of side lines, must be settled each for himself, according to his circumstances and surroundings. As a large majority of this class of goods have the selling price fixed by the manufacturer, the retailer is really only his agent and should, therefore, look to him for protection, and if he does not, the retailer certainly is under no obligation to protect the manufacturer, and there is, therefore, no reason why he should not become a competitor and, acting on this view of the matter, will ultimately solve the cut-rate problem. A careful study of the problem will, I think, reveal the fact that the great underlying evil of trade in patent medicines is their unknown composition, and could the baneful effects which sometimes result from their unintelligible and indiscriminate use be brought to the attention of the public, they would not only be astonished but alarmed; and so numerous have they become, and so many are the new remedies the physiological and pathological effects of which have been scarcely determined, that are coming into general use, that it has become not only a duty but a necessity to the pharmacist, if he wishes to preserve his integrity and protect the unsuspecting public, to know their true composition. Many arguments can and have been used against putting formulas on the packages and I think the true solution of the problem would be to restrict their sale to those who were acquainted with their use and effects and make it illegal to sell or dispose of such medicines or remedies unless the formula was published on or was on file with the vendor. This could not interfere with any genuine patent or proprietary right or with the legitimate sale of any article of real merit, but would let in the light on many dark places.

If what I have stated are facts, why should we not as individuals

and as an Association for our own protection, the good of the public and the advancement of true pharmacy, strive to bring about these reforms by appropriate legislation. As members of the Association, as druggists and pharmacists, we should strive to keep up with the advances which are taking place in the science of pharmacy. Take and read one at least of our many excellent trade journals. Exercise great care as to who we admit to the ranks of the profession. Our apprentices should be, both by education and taste, adapted to make good members of the profession. As a body we should strive to elevate the standing of pharmacy and place ourselves in our true position before the public, and by appropriate legislation and strict supervision on the part of our Boards of Pharmacy, convince the public of the honesty and sincerity of our measures for their good.

To extract the active principle from the above crude observations, I would urge: First, as public opinion and legal enactment require, that the druggist shall be competent, careful and conscientious, and as it costs time, money and labor to fit himself for the practice of his profession, it is to the interest of the public as well as due to the druggist that the handling, dispensing and vending of all drugs and medicines, and especially poisonous and dangerous articles, should be restricted and confined to the drug trade exclusively. Secondly, to enable the druggist to know what he is selling, and to enable the physician to know what he is prescribing, no preparation or medicine should be permitted to be sold or dispensed unless its formula is published or is on file with the vendor. There is nothing that will dispense the dark clouds of error and falsehood so effectually as the bright light of knowledge.

That these are reforms which we as an Association should strive to bring about I think no one will deny, although we may differ as to the measures which should be adopted to accomplish the object sought; but every druggist, present or absent, members of the Association or not, who has the good of the profession and good of the public at heart, should contribute a portion of their time, energies and money to accomplish them. Each one can do something himself, but as an organized body much can be accomplished.

We are passing through a period of depression, both business and professional, but I think I can see a bright light ahead; therefore let the weak take heart and the strong encourage the weak, but let no one stand aloof like cowards while others fight their battles, and then come in for a share of the benefits. If good is accomplished, what matters it if it is our way or some other's way so long as it is attained. Let us work in harmony to establish the principles of truth and justice and the druggist of the future, instead of being the mere vendor of commodities and agent of the manufacturers in the distribution of unknown articles, of unknown quality and quantity, for unknown diseases, will be the intelligent dispenser of remedies for the healing of the nation.

The President's address was listened to with great attention and upon finishing was greeted with hearty applause.

Chairman—"What is your pleasure with the address of the President?"

Motion was made by Mr. Russell that the President's address be referred to a committee to be appointed by the Chair.

Adopted.

Chairman—"I will appoint on the Committee on President's Ad-

dress, to report at our next session, Messrs. H. G. Colman, F. W. R. Perry and Charles F. Mann."

President—"I wish to say further, that after the address had been written I received a letter from our Secretary, written to him by Adolph Cohoe, in regard to a particular point touched in my address :

"CAPAC, MICH, July 22, 1896.

B. SCHROUDER, Secretary,
Grand Rapids, Mich.:

Dear Sir—I am in receipt of invitation to attend the fourteenth annual gathering of the M. P. S. A. at Mackinac Island, August 4, 5 and 6. Permit me to say that owing to the times and demoralized condition of the drug trade, I am not able to take it in. I pay my membership fee or dues each year with the hope that time will bring some necessary changes in the law. I think the proprietor of a drug store should be a pharmacist. I think the sale of paris green and a host of common drugs which are rank poisons and now allowed to be sold by other lines of business should be confined to the drug trade.

I believe it is the intention of the druggists at some time to have these changes brought about and I propose, if unable to attend, to lend my support to the Association. Wishing you one and all a pleasant and prosperous meeting, I remain

Very respectfully,

ADOLPH COHOE."

President—"The order of business now is regular business. Is there anything to come before the Association? What is next on the table, Mr. Secretary?"

Mr. Schrouder—"Mr. President, I believe the next in order is the report of Secretary, then that of Treasurer; but as the Treasurer is not here and I have not received his report, it is necessary to defer (with your permission) my report until the next session, as I expect Mr. Dupont will mail his at once."

President—"You have heard the request of the Secretary. If there are no objections, we will give him until the next session to make his report."

A motion was duly made and carried that the Secretary be given further time to make his report.

The Secretary then announced several communications from friends of the Association, and requested Mr. C. N. Anderson to read the same to the convention.

Mr. Anderson—"The first is a telegram from H. M. Whelpley, editor of Meyers Brothers' *Druggist*, of St. Louis, as follows :

ST. LOUIS, MO., August 4, 1896.

TO BEN. SCHROUDER, Secretary M. S. P. A.:

The Meyers Brothers' *Druggist* sends best wishes for a pleasant and profitable meeting.

H. M. WHELPLEY, Editor.

"Another is a communication from our brother druggists in Alpena, as follows :

ALPENA, MICH., August 1, 1896.

To the President and Members of the M. S. P. A.:

GENTLEMEN—The people of the City of Alpena respectfully invite your Association to hold its next annual meeting in Alpena. We can promise you a comfortable and pleasant place for your meeting, reduced rates at the hotels, and a hearty welcome from a people who have an enviable record for hospitality.

Our city is admirably adapted for a summer convention. Easy of access by water or rail from any part of the State, surrounded by beautiful inland lakes and pleasant beaches, with a climate unexcelled by that of any other summer resort, it is an ideal place for an outing, while its numerous factories cannot fail to be of great interest to your members.

With confident assurances that you will have no cause for regret should you accept our invitation, and with our best wishes for the success of your Association, we are, sirs,

Yours respectfully,

F. W. GILCHRIST,
Mayor.

MICHAEL O'BRIEN,
Pres. B. M. Ass'n.
JAMES E. FIELD & Co.,
KINSEL BROS.,
JOHN T. BOSTWICK,
ED. C. SPENS,
J. CHARLES WOOD,
THOMAS MIDDLEMIS,
Retail Druggists.

(Applause.)

"Another is a communication from the Detroit Convention League, through the Secretary of the Detroit Pharmaceutical Association, Mr. J. W. Caldwell:

DETROIT, MICH., August 3, 1896.

BENJ. SCHROUDER, Esq., Secretary M. S. P. A.:

Dear Sir—Please find enclosed letter and circulars from the Detroit Convention League, which please present to the Association for their consideration.

Very respectfully,

JAMES W. CALDWELL,
Secretary Detroit Ph. Society.

OFFICE OF DETROIT CONVENTION LEAGUE, {
DETROIT, MICH., August 3, 1896. }

JAMES W. CALDWELL, Esq.,

242 Grand River Ave., Detroit:

Dear Sir—I understand that you will attend the meeting this week of the Michigan Pharmaceutical Association at Mackinaw, and I would like to have you, with other Detroit members, do what is possible to have the '97 meeting of that body held in this city, assuring you that the Convention League, together with other organized bodies, will do what we can to make their meeting here one grand success and continual round of pleasure. We will take hold of the financial end of the affair and see that it is handled right; also look after other details. You can assure them that we will get reduced rates on all roads, give them a place to meet, fix side-line excursions, give them committee headquarters at any hotel their committee may select, as well as doing everything possible to make a meeting here a

success. If you cannot attend the meeting this week, please see that this reaches someone who will. Thanking you for favors, I remain,
Yours truly,

MILTON CARMICHAEL, Sec'y.

"Another is a letter from our friend Mr. Parkhill :

Owosso, MICH., August 3, 1896.

My Dear Doctors—Very sorry, but circumstances of recent development will prevent my meeting you at the Island. Expected a pleasant meeting and will be sorry to miss seeing the boys. Will you kindly tell some member of the Board that I will not be at Marquette at the Board meeting.

Sincerely,

STANLEY E. PARKILL.

"Here is another communication from Charles C. Sherrard :

DETROIT, MICH., July 29, 1896.

GEORGE J. WARD, M. D., St. Clair, Mich.:

My Dear Doctor and Friend Ward—It is with considerable reluctance that I have decided that I will be unable to attend the M. S. P. A. meeting over which you preside. I should like to have aided you at least with my presence, but exacting duties here and preparations to attend the A. Ph. A. at Montreal will prevent my going to Mackinac.

I have sent the Secretary a paper by Prof. Stevens and one by myself. You might say to the Association that Prof. Stevens, as chairman of the Committee on Papers, has no further report to make.

I am interested in your having a successful meeting, particularly because of your official position, and wish I could do more to add to the success which you hope for.

If a committee of delegates to the A. Ph. A. is appointed from those who expect to attend and you are short a member, you may fill out with your humble servant. In haste,

Yours very truly,

C. C. SHERRARD.

"Here is one from George McDonald, telling of his trip to the A. Ph. A. meeting at Denver last year :

KALAMAZOO, MICH., August 3, 1896.

MR. BENJ. SCHROUDER, Secretary M. S. P. A.:

Dear Sir—Dr. A. B. Prescott, Prof. C. C. Sherrard, Dr. F. E. Stewart and I were present at the Denver meeting of the A. Ph. A., beginning August 14, 1896. It is perhaps needless to say that we had a very enjoyable time, as Denver is noted for its hospitable treatment of visiting associations. We all ascended Pike's Peak by the "cog" railroad, and saw from one side of its summit the rolling hills constituting the "Cripple Creek" district, and from the other side the city of Colorado Springs, looking like a "checker board" on the plain below. We visited the wonderful "Garden of the Gods," to which no description can give justice. We drank from the health-giving waters of the "Ute Iron" and "Soda" springs of the Manitou. We had a wonderful ride up the "Clear Creek" canon to Georgetown, and thence over the famous "loop" (in which a railroad ties a knot upon itself), carrying us up to "Silver Plume," an altitude of 9,000 feet above the sea level. There we found ourselves in a stupendous mountain gulch, the walls of which towered thousands of feet above us. On one side was a wagon road,

said to reach an altitude of 14,000 feet, the highest wagon road in the world.

Valuable papers were read at the meeting by Dr. A. B. Prescott, Prof. C. C. Sherrard and Dr. F. E. Stewart. As to all the work done at the meeting, it would be like reading ancient history to attempt to recite it. This has already been fully done long ago in the numerous pharmaceutical journals of the country, and for me to attempt to do it anew would simply be tedious and unnecessary.

Yours truly,

GEORGE McDONALD.

"And last but not least is an interesting letter from Prof. A. B. Prescott, of Ann Arbor, telling of the Denver meeting of the A. Ph. A., as follows:

DEAN'S OFFICE, SCHOOL OF PHARMACY, U. OF M., }
ANN ARBOR, MICH., August 3, 1896. }

MICHIGAN STATE PHARMACEUTICAL ASS'N:

Gentlemen—Your delegates to the Denver meeting of American Pharmaceutical Association, August 14, 1895,—Mr. George McDonald, Mr. C. C. Sherrard and the undersigned—were punctually present at the appointed time and place. The meeting itself and the journey hither and in return were most enjoyable, as also the various Rocky Mountain excursions and the scenery which they revealed. Therefore your faithful delegates determined that the entire membership of this State Association should realize in its fulness the enjoyment and the privileges of that national meeting, through your humble representatives, and to the very best of their representative powers. We saw and heard, witnessed and enthused, ate and drank for you all. In fact, it was only in the single particular item of the payment of expenses that we felt it necessary to restrict ourselves to the numbers of the appointed persons: in all other respects we counted ourselves according to the full numbers of the appointing power in the Michigan membership.

I trust that Mr. McDonald will report for this delegation, and for himself as a member of it, and I would like him to make the entire report, but I know he will allow me to add a few personal reflections of my own upon the Denver meeting. In so doing, therefore, I shall speak only of my own observations in the meeting.

The American Pharmaceutical Association is well rooted and of vigorous growth, rounded out in the several features of trade affairs, scientific work, and professional polity—a strong body of secure basis, more permanent in its organized life than the societies formed in purely commercial or industrial pursuits, and withal of such sound business rules as have already provided a fair financial basis, moderate but growing, and promising effective action. It is an Association that would do credit to pharmacy in any country, and is advancing in merit with a pace beyond that of the corresponding societies in Europe.

Of its section of commercial interests I can only say this, that it brings able men of business from all parts of the country to discuss well matured proposals with earnestness and candor, sometimes with sharp conflict of policy, not seldom with tokens of discouragement in view of the situation. Something like this might have been said of pharmaceutical meetings not so far away as Denver, but now that the great political parties are ranging themselves and dividing themselves upon questions of financial policy, the Pharmaceutical Associations appear, in comparison, a most happy brotherhood, dwelling in singular unity of purpose and of doctrine.

The section of scientific papers and work of research in the Association is steadily growing stronger, and affords an abundant field for the best efforts. The high character of the Committee of Revision of the United States Pharmacopoeia, and the successful measures for investigation toward the next revision, give strength and opportunity to all the scientific work of the Association. At the next meeting, in Montreal, a considerable scientific advance may be expected. Several subjects of great practical interest in pharmacy are to be reported upon. The present tendency is one of concentration of scientific effort—a tendency everywhere, indeed, but especially in the American Pharmaceutical Association. To the end of this concentration the Committee of Research was proposed and has been instituted. By this or other measures the concentration is to be cultivated. To favor concentration, workers must plan and work together, and the records of past workers must be collated and brought to the hand of every investigator.

The section of education and legislation had a rather lively set of meetings in Denver, upon education at all events, but mainly such as has been quite well enough known. The course of pharmaceutical education has set itself forward with such a tide, under the demands of the age, that all can see it quite futile to oppose the central current. It is not necessary to talk about it. In respect to legislation, some very wholesome and beneficial recommendations were made. I forbear to enter upon these; they have been before you in the prints. They will be taken up as fast as public adaptation permits. I beg leave, however, to mention the resolutions urging for *registration of the sale of poisons*, both by command of every druggist in his own store and of the law in every State. It is a matter which concerns the credit of pharmacy, as well as its obligation to the public.

ALBERT B. PRESCOTT."

President—"These communications, I suppose, can by consent of the convention be placed on file with the Secretary and ordered printed in the proceedings."

Mr. Anderson—"I move that the Secretary be instructed to print the communications I have just read in the proceedings of this convention." Adopted.

Secretary—"I also have three papers which I suppose it is in order to now bring before you."

President—"What is your pleasure regarding these papers?"

Mr. Bugbee—"It seems to me that as it has been done heretofore, papers of scientific nature may be read by title, and I make a motion that the papers of scientific nature be read by title and published in the proceedings."

Mr. Russell—"I believe that prizes have been offered for the best papers. How are we going to decide?"

President—"Is it specified how that decision is to be made? Is there any second to your motion, Mr. Bugbee?"

Mr. Schrouder—"I move that a committee of three members present be appointed as a Committee on Prizes, they to read these papers at their leisure and report their decisions regarding prizes before the convention closes." Supported.

Mr. Colman—"I would like to know what the titles of the different papers are."

President—"I could not tell, Mr. Colman, until after the papers have been read."

Mr. Anderson—"There is one paper by C. C. Sherrard, Ph. C., entitled 'United States Pharmacopœial Pepsin Standard Compared with Foreign Pharmacopœial Standards.' And another paper by Prof. A. B. Stevens, of Ann Arbor, entitled 'Tincture of Iodine.' And another by B. Schrouder, the title of which is 'Advertising a Drug Store.'"

President—"You have heard the motion of Mr. Schrouder: is there any question?"

Mr. Colman—"I would like to hear the paper on advertising read."

Mr. Bugbee—"I would like to know if these are all the papers that have been entered in the competition for prizes?"

President—"Mr. Secretary, have you any other papers on your files?"

Mr. Schrouder—"It is all the competitive papers I have."

President—"Those in favor of Mr. Schrouder's motion will signify in the usual manner. Carried."

President—"I appoint on that committee Messrs. Webber, Colman and Mann."

Mr. Colman—"I move that the paper by our Secretary on 'Advertising a Drug Store' be now read to the convention." Adopted.

Mr. Schrouder—"Mr. President, before this paper is read I would like to say that had there been any other papers presented in this line, mine would not have come in, as I do not deem it a real good paper, and it contains nothing new. I dictated the same one day before coming up here and made up my mind to present it if no other paper on advertising was entered."

President—"Mr. Anderson, will you please read that paper on 'Advertising a Drug Store,' and we will consider our Secretary's explanation later."

Mr. Anderson reads:

ADVERTISING A DRUG STORE.

I have a small drug store in the residence portion of Grand Rapids. This drug store and the sales I make thereon are my only sources of revenue, consequently I have tried hard to make my experience in the retail drug business successful. To make it successful I found it necessary to advertise, and I firmly believe no man can achieve success as a merchant unless he does advertise.

If you are not doing as much business this year as you did last, don't throw up your hands and tell your customers how much the town is suffering from a general business depression; don't tell them business is quiet; don't tell them you wish you were out of the retail drug business, because your "used-to-be" customers do not seem to want anything but postage stamps and the telephone; or,

if they do want anything, it is five or ten cents' worth when it used to be twenty-five or fifty cents' worth. Something is wrong—you have forgotten to tell them of that new lot of toilet soap you have just received; you have neglected to advise them that you have just reduced the price of Epsom salts; you didn't happen to notice that Jones & Brown are advertising pure drugs and expert pharmacists only for their prescription department, and that they are selling imported castile soap by the pound, while you are still sticking to the old method of ten cents a cake.

Jones & Brown, in their advertisements, are announcing seasonable goods, and, as it happens to be pickle season, they have a complete assortment of corks to fit any size or shape of fruit jar their customers may happen to bring in; they are not out of a single thing in that line, from every spice to the old-fashioned sealing wax. Possibly you think you have a complete line of corks and the very next customer has a large-sized olive bottle for which she wants a cork, and it just happens you cannot supply her. That trivial lost sale produces an excellent advertisement for your competitor; the customer invariably goes home and remarks to the remainder of the household that she could not get a cork to fit her bottle at "Smith's Drug Store," so she was compelled to go over to "Jones & Brown's," and, of course, while there she bought the sealing wax and cinnamon buds.

A pleasant, cordial, attentive, but still unobtrusive manner makes and holds trade. No matter what the transaction, be it a postage stamp sale or the loan of a directory, it does not take any more time to be amiable than to be crusty. Be careful and not be too pleasant or too familiar; that is not good—it leads to a lack of respect. A druggist should keep up his dignity.

In writing an advertisement about a store be sure that you tell the truth, and do not use too many adjectives. Your advertisements are the news of your store, so do not make them ridiculous to all sensible people, for it does not pay to use words which really mean nothing and usually disgust the reader who has any brains in his head. Talk plain, quiet, sober sense. If it does not come handy for you to do so, hire someone else to do your talking.

I have never been able to see how retail druggists can make any money advertising in church programs, secret society rosters and such trash. The ordinary druggist cannot afford to do so, but is often prevailed upon to do so by the ladies of the church, or the members of the lodge, on the ground that it is a good thing because the people who are getting up the programs are his customers. He probably spends more for his advertisement in such programs than the profits on such customer would be in several years.

Retail drug store advertising should be mostly done in the store. The druggist should have competent assistants, the best of goods and reasonable prices; his store should be clean and inviting, but not necessarily elaborate. If his drug store is in the heart of the city, on the main street, or in a small country town, it is wise to confine all outside advertising to the best newspaper in the town. If his store is situated in the outskirts of the city, where he has to rely on a neighborhood family trade, newspaper advertising, as a rule, should not be thought of. The druggist should either publish a small weekly or monthly newspaper of his own, or send out by mail or reliable messengers regular announcements of the different items of interest about his store.

There are plenty of things to talk about interestingly to the customers of a druggist. In the inventory which I took of my store

last year I had nearly three thousand items of drugs and druggists' sundries.

There has been so much said and there is now so much good advice being published about advertising in the leading trade and pharmaceutical journals of our country, that there is no excuse whatever for a druggist's not knowing how to keep up to date and holding the trade of his store, and every pharmacist should take special pains with his own business, and should let the advertisements and general management of his store be a continual study or object lesson.

Mr. Bugbee—"I now move that this paper and the other two be referred to the Committee on Prizes as previously appointed by the Chair." Adopted.

Mr. Schrouder—"There are also prizes offered for the best five display advertisements, and I move that these also be submitted to the Committee on Prizes." Adopted.

President—"Is there any further business on your table, Mr. Secretary?"

Secretary—"I have seven applications for membership, and they all come well recommended."

President—"Gentlemen, you have heard these applications for membership, are there any remarks to be made?"

Mr. Colman—"I would like to ask if they are all pharmacists?"

Secretary—"They have not been presented to me (all of them) in quite the proper manner, and for that reason I cannot answer that question."

After considerable discussion regarding the profession of the applicants, the names were referred to the Executive Committee and that Committee instructed by the President to report at the next session.

Mr. Anderson—"Before these names have been duly considered by the Executive Committee, I wish to say that I believe it essential to the welfare of our Association that we be careful not to enlist on our roll of membership or consider any more applications for active membership from anyone but pharmacists. I think it wise to exclude applications from wholesale dealers and manufacturers, as their voices in meetings of this kind very often seem to prohibit free discussions of matters of vital importance to the retail pharmacist. I realize that now I am not connected with a retail drug store, and do not feel as though I am any more entitled to membership or a voice on this floor of our convention."

President—"Is there any further business, Mr. Secretary?"

Mr. Schrouder—"I have before me an excellent copy of the report of the Board of Pharmacy, as follows:

To the Secretary of the Michigan Pharmaceutical Association:

DEAR SIR—I have the honor to submit the following report of the Michigan Board of Pharmacy for the year ending with the June meeting, 1896.

I wish to call your attention to the raise in percentage made at

the Grand Rapids meeting in March, 60% to 70%, and 40% to 50%. Notwithstanding this raise in percentage, the number of successful candidates has been about the same as before. The Board are very much gratified with the results obtained. The candidates evidently felt that they had an incentive to do better work.

The prosecution of violators of the pharmacy law has been carried on with due regard to the law-abiding pharmacists of the State. The number of convictions is largely in excess of previous years. This is undoubtedly due to the fact that the druggists have become aware of the fact that the Board does not propose to allow any guilty man to escape, and have reported delinquents more freely than in the past. For list of convictions and fines paid, see Secretary's report in proceedings of the June meeting.

Attached hereto you will find a copy of the proceedings of the Board for the year, as shown by the Secretary's minutes; also copies of the By-Laws and Rulings of the Board.

Respectfully submitted,

F. W. R. PERRY, Secretary.

SECRETARY'S REPORT.

To the Michigan State Pharmaceutical Association:

GENTLEMEN--I herewith submit my report as Secretary of the Board of Pharmacy for the year ending June 30, 1896.

The receipts for the year have been as follows:

From 3,027 renewals as Registered Pharmacists, at \$1.00	\$3,027 00
" 230 renewals as Registered Assistant Pharmacists, at 50c.....	140 00
" 197 applications for examination, at \$3.00.....	591 00
" 95 applications for examination, at \$1.00.....	95 00
Total receipts.....	\$3,853 00

Sent to Treasurer as provided by law.

During the year we have issued certificates to licentiates of other Boards as follows:

REGISTERED PHARMACISTS.

Henry Heinzel.....	Green Bay, Wis.....	From Minnesota
Charles Graves.....	Gladstone.....	" Wisconsin
Percy H. Sharp.....	Ironwood.....	" Wisconsin

There have been three regular examinations held during the year:

At Lansing, November 6 and 7, 1895.

At Grand Rapids, March 3 and 4, 1896.

At Star Island, June 22 and 23, 1896.

And two special meetings:

At Sault Ste. Marie, September 3 and 4, 1895.

At Detroit, January 7 and 8, 1896.

The following table shows the number of persons examined and the number that passed:

	EXAMINED.		PASSED.		Entitled to Certificates—40%
	R. P.	Asst.	R. P.	Asst.	
Sault Ste. Marie.....	18	..	7	..	5
Lansing.....	52	14	15	10	32
Detroit.....	44	16	14	2	20
Grand Rapids.....	54	17	15	7	10 50%
Star Island.....	71	13	24	7	30
Total	239	60	75	26	97

We have received 90 complaints of violation. Eighty-one cases

were given to the Board's Attorney for investigation, resulting as follows: Convicted, 47; acquitted, 1; dropped on recommend of Attorney, 26; released on suspended sentence, 2; appeal to Circuit Court, 1; dismissed by Prosecuting Attorney, 1; dismissed by Judge, 1; left city, 2; in hands of Attorney, 5; in the hands of the Secretary, 9. The costs and fines amount to \$661.85. This, added to the amount imposed up to the beginning of this year (\$1,431.13), makes a total of \$2,092.98 up to date.

These 47 convictions, added to the number convicted up to the beginning of year (97), makes a total of 144.

The cost of carrying on this work has been \$874.58; the cost for previous years, \$6,371.76, making a total of \$7,246.34.

Notices to cease to act as registered pharmacist or assistant registered pharmacist were made to all who had failed to renew their registration, February 1, 1896, as ordered by the Board at the November meeting. One hundred and twelve registered pharmacists and 76 assistants were thus notified. Eighty-four registered pharmacists and 68 assistants failed to renew.

Registrations in force at the close of the current year :

Registered Pharmacists.....	3,092	—	24	~	3,115
Assistant Pharmacists	328	—	7	~	335

Total number dropped at the close of the current year :

Registered Pharmacists.....	1,173
Assistant Pharmacists.....	635

SUMMARY.

Registered Pharmacists, 1895.....	3,104
Registered Pharmacists added.....	96
	3,200
Registered Pharmacists failed.....	84
Registered Pharmacists, 1896.....	3,116
Registered Pharmacists failed to renew to 1895.....	1,085
“ “ “ “ 1896.....	84
“ “ in force to date.....	3,116
Registered Pharmacists registered to date.....	4,985
Assistant Registered Pharmacists, 1895.....	339
“ “ added.....	64
	403
“ “ failed to renew.....	68
Assistant Registered Pharmacists, 1896.....	335
Assistant Registered Pharmacists failed to renew to 1895.....	567
“ “ “ “ 1896.....	68
“ “ in force, 1896.....	335
Assistant Registered Pharmacists registered to date.....	970

President—"You have heard the report of the Board of Pharmacy, have you any action to take regarding it?"

Moved by Mr. Bugbee that the report be referred to the Secretary, instructing him to print same, as usual, in the annual proceedings. Adopted.

Mr. Anderson—"While this report is before us, I do not know as I am in order, but notwithstanding that fact, I feel as though our

State Board ought to be complimented on the excellent manner in which they conducted the business of their offices during the past year, as shown in that report. Of course they have done nothing but their duty, but their duty has been done exceedingly well."

President—"A motion to that effect would be in order."

Mr. Colman—"I then move Mr. President, that our convention do hereby extend its hearty congratulations to the State Board of Pharmacy, and Mr. F. W. R. Perry, Secretary of same, on its excellent work and the handsome appearance of the Board's report at this meeting, and that this resolution be printed in the proceedings." Adopted.

President—"Is there any other business?"

Secretary Schrouder—"I have now the report of the Committee on Trade Matters, and as Mr. Anderson is here, I wish the President would ask him to read the report."

President—"Mr. Anderson will you kindly read the report to the convention."

Mr. Anderson reads the report of the Committee on Trades Interests.

"The Committee on Trade Interests appointed at the session of the Association in 1895 had before it considerable matters to digest, proposed for it by the preceding committee, and like its predecessor, it had many things to say, but it would be useless to again enumerate them here. You all have the report of 1895 and we endorse that report as covering our views on organization, sale of patent medicines and the "cutting" question, but what is the necessity of repeating what has been said again and again? It will only be discussed incidentally and dropped. What we want is life and spirit in our business to do something and not wait eternally for someone to do for us. All I can say is, that if there is anyone here who has given any thought on the subject during the past year and can furnish new ideas and ways and means, why, let him take the floor and tell us something, and if we can start the life blood to flowing a little quicker and incite to action the latent interest, we will welcome him as the Israelites did Moses who led them out of the wilderness.

If the Trade Interests Committee were to submit its annual report and in no way refer to the cutting of prices on patent medicines and toilet articles, it would be such an innovation that we fear some members might question if they had really been to the meeting of the M. S. P. A., for at all our previous meetings it has been a subject which has been largely discussed. It is not necessary to inform our members that cutting is being done; for simply to remind one another of the fact and talk over the evils thereof has but little effect towards producing the desired result—restoration of prices. A great many things have been suggested and discussed, but the results are well known to every member. This Committee leaves the matter open for a free and full discussion, hoping some good member has come here with a plan, the adoption of which will be able to lead us out of the wilderness into the promised land. As a Committee, we have only a word or two to say on this question, and that is again to further urge organization. The pharmacists whom we now want to have hear and act on our suggestion are not with us and never are, as they do not belong to our Association, hence

our suggestion is of little importance, for we recognize the fact that any suggestion or recommendation from us, advising more complete and successful organization, will fall on the ears only of those who are already in our organization and are always ready to join in any measure which shall promote the interests of the Michigan State Pharmaceutical Association and all pharmacists of Michigan.

There are obvious reasons why an organization of the entire drug trade of Michigan is impossible, for every man here probably can recall some dealer who, under no circumstances, would join with us. We can get along without these few, but we want the remainder of the State, and believe the plan suggested in the report of 1895 would be a means to interest them.

THE MUTUAL MANUFACTURING PLAN.

Our report of 1895 on this subject was, we believe, the starting point for the display of considerable business sense; the conditions remain the same at the present time as they were last year, and we can do no better in this line than to suggest the re-reading of this report should the society deem it wise; while we in Michigan have not taken the first step in the manufacture of drugs, we are pleased to note it has been done in other states, and enterprises of this nature we are informed, have been established in Illinois, Oregon, Kentucky, Minnesota and commenced in New York State. There are several reasons why Michigan did not assume the van in this departure; the appointment of committees without providing the ways and means for them to act, necessarily left the matter in *statu quo*, again the whole subject was hurriedly discussed and no definite conclusion reached, further, the times have not been favorable to an investment of any considerable amount and perhaps it is well that no definite action at this time has been taken; it is now left for us to say when to go ahead.

Any good business man before entering upon a new business departure should, and probably would, weigh both sides of the question; the advantages and the disadvantages to be gained. The report of 1895 covered the ground very well, viz: the amount saved on traveling expenses; the manufacturers' profits; the loss from bad debts, as we advocate a cash business strictly; advertising, as each firm or stockholder can do much to advertise the goods without cost and various other items. The report of 1895 contains but little, if anything, on the other side of the question.

We do not advocate looking backward, but if we will look into both sides we will find we must pass through the experimental stage, which is quite a feature and sometimes expensive. We must expect to lose the good will and co-operation of the manufacturer.

If we confine ourselves to Proprietary Medicines, the loss is not such a serious one, as their goods afford us but little or no profit, but if we go into the manufacture of pharmaceutical goods, the case is different.

If the manufacturer finds no output for his goods through the retail pharmacists, he must look elsewhere for his customers, for he cannot afford to let the trade get away and stand idly by, and if need be, he will go to the physician direct—we know this is done by some firms; at the same time many of our best firms seek to have the business done through the retail druggist; we believe the favorable points outweigh the unfavorable, we however submit the suggestions for discussion.

It gives us much pleasure to say we, as druggists, have made a beginning in a manufacturing line which seems to us something

worthy of the endorsement and support of this Association, viz: The Pharmacists Cigar Company. A number of druggists after careful investigation, were convinced that in this departure we could test the merit of mutual manufacturing, and took occasion to go into the details of such an organization, finding it practical, a corporation was formed and all druggists in Michigan asked to become members; a few responded and a canvass was commenced; as the plan was developed, we are pleased to say it has had as good support as could be expected. Some 250 druggists are members, some thirty from Cleveland, Ohio, have also joined with this state, and The Cleveland Pharmaceutical Association at their meeting May 1, endorsed the matter and over twenty-five of the Cleveland pharmacists promptly subscribed for stock.

A factory has been in operation now some two months making goods and the start practically accomplished. Their representative Mr. C. N. Anderson, who is also a member of this committee, is here and we believe that it would be of interest to ask him to explain the details of this druggist's company and after doing so, and thoroughly discussing the same, we should as a society, endorse it. It is a Michigan idea emanating from the druggists and operated by them and it is eminently proper we should do all we can to further its interests. We therefore recommend that Mr. Anderson be called upon to supplement this report with an explanation and that resolutions be passed in accordance with the facts thus shown.

We feel that we have made a beginning in the right direction, which may lead to greater things in the future.

FRED J. TODD,
Chairman.

President—"You have heard the report of the Committee on Trade Interests, and it is now properly before the convention for discussion. I consider it a very important paper, and recommend that it be given careful attention. I am ready to hear what remarks you deem your pleasure."

Mr. Anderson—"I would like to suggest that perhaps some of our members would like to read over the most important parts of this report, and as it is nearly time for dinner, it would be quite the proper thing to lay this report on the table and bring it up for discussion at a more convenient time in our next session."

President—"Do you offer that as a motion, Mr. Anderson?"

Mr. Anderson—"I do." Adopted.

Mr. Church—"As it is a nice day, and as the programme has been re-arranged since we arrived in Mackinac Island, I move, Mr. President, that we adjourn until after dinner, then to hold a one hour's session, and go on with our carnival of games." Adopted.

SECOND SESSION.

The second session was called to order at 2:40 p. m., Wednesday, by President Ward. Twenty-seven members were present.

President—"As there is no special program arranged for this session, and our Secretary has informed me of a paper in his possession

written by F. A. Thompson, chairman Committee on Adulterations, if there are no objections we will listen to that paper."

The Chair then instructed Charles F. Mann to read the paper to the convention.

Mr. Mann—"I make a motion that this paper be published in the proceedings and not read at all at present, except by title."

Mr. Gundrum—"I oppose the laying on the table of the report of the Committee on Adulteration, as I consider it important enough that all reports should be read to make it worth while for the author to present them."

President—"The question before the house is whether we will accept this report and file it, or continue the reading of it. We will settle the question by vote. All those in favor of accepting the report and publishing it in the proceedings will signify in the usual manner." Carried.

DETROIT, July 31, 1896.

MR. BENJ. SCHROUDER, Secretary.

Dear Sir—Enclosed please find my report for the Adulteration Committee, which, I am obliged to say, is not as long as we have had, or possibly could have been, if the committee had had more time to devote to it. The one submitted represents notes from records of the regular analytical work done in my laboratory. I regret exceedingly that I am unable to attend, but sickness and other expenses during the past will prevent my enjoying the elegant trip you have planned.

Wishing you a fruitful and pleasant meeting, I am

Yours sincerely,

F. A. THOMPSON.

REPORT OF ADULTERATION COMMITTEE.

Members of the Michigan State Pharmaceutical Association:

All the report I am able to present is that gathered from notes of the analytical work done during the past year. Want of time has prevented the committee from doing any special work, which was contemplated.

Reviewing the journals one finds that the question of adulteration is being agitated and acted upon in different States, and it is suggested that our Association take some active steps this year on the question.

ACETIC ACID.

Sp. gr. 1.036 to 1.042, equal to 26 to 30% abs. acid.

ANTIMONY OXIDE.

Six samples found to contain large quantities of an antimony salt, insoluble in hydrochloric acid.

ACID HYDROCYANIC, DIL.

Eleven (11) samples direct from the manufacturers:

One assayed 1.5% abs. acid.

Four assayed 1.6% abs. acid.

Four assayed 1.9% abs. acid.

Two assayed 2.0% abs. acid.

BENZOIC ACID.

Eight samples examined. Four contained an excessive amount of chlorine, and four not.

BISMUTH SUB-CARBONATE.

Ten samples examined:

Six contained no arsenic.

Two contained traces of arsenic.

Two were strongly contaminated with As.

BISMUTH SUB-NITRATE.

Thirteen samples examined:

Ten contained no arsenic.

Two contained traces of arsenic.

One strongly contaminated.

BISMUTH SUB-GALLATE.

Fourteen samples examined:

Eight samples completely sol. in fixed alkali, being free from foreign bismuth salts.

Six contained small amount bismuth salt, insoluble in the alkali.

CALCIUM SULPHIDE.

Seven samples required from 1.4 to 1.85 Gms., instead of 1 gm. for the 2.08 Gms. copper sulphate in U. S. P. test, indicating about 32.5 to 43% of pure calcium mono-sulphide.

Manufacturers of this product claim the present U. S. P. standard of 60% is too high for practical manufacture.

COPAIBA BALSAM.

Almost an impossibility to find a product answering the U. S. P. requirements of being soluble in abs. alcohol and $\frac{1}{4}$ its volume of ammonia water. All samples yield a brittle residue on evaporation, and some gave positive reaction for gurjan balsam.

A product that needs improving very much.

CHAULMOOGRA OIL.

Two samples out of seven were found to be nothing more than *linseed oil*; the remainder satisfactory.

CHLORINATED LIME.

Seven samples found to assay 29 to 36.5% available chlorine—average, 33%.

CREOSOTE.

Only two samples out of sixteen found to contain a trace of coerulignol or other high-boiling constituents of wood tar, by the U. S. P. test.

EUCALYPTOL.

Eleven samples found to answer the U. S. P. requirements as to specific gravity, optical activity, and in solidifying at 0°C, and one having a specific gravity of 0.909, a rotation of 3° 45' to the right and remained liquid at -20°C and had a strong odor of the oil, and not camphoraceous, like true eucalyptol.

MAGNESIA.

Seven samples examined. Four contained no carbonate, but

from 4.6 to 19% water of hydration and moisture, and three lost 9.2, 28.4 and 54% in weight, on ignition, being largely carbonate, the last one being practically a carbonate.

OIL EUCALYPTUS.

Seven samples examined, six of which were found to contain sufficient eucalyptol to produce a very hard mass when tested by Faulding's phosphoric acid test, while one gave negative results with same test; had a sp. gr. of 0.88 instead of 0.915, color greenish, and a strong suggestive odor of turpentine.

OIL SASSAFRAS.

Five samples examined. Four found to have the correct sp. gr. and a rotation of 2° to $3^{\circ} 45'$ to the right; and one a sp. gr. of 1.034 and a rotation of $+8^{\circ}$ to the right, and an odor and taste poor and not peculiar to sassafras.

QUININE SULPHATE.

One special sample, representing a large quantity, was offered at $2\frac{1}{2}\%$ below market price, and was found to contain a large quantity of quinidine.

STRYCHNINE.

Three samples out of twelve were found to yield upon ignition 2.4, 2.6 and 9.4% ash, largely phosphates of calcium. Not an added adulterant, but comes from the charcoal used in purification.

TARTAR EMETIC.

Out of thirteen samples examined, five gave faint reaction for arsenic and six a decided coloration, and some a precipitate by Bettendorf's test.

FL. EXT. NUX VOMICA.

Samples bearing the label of being a U. S. P. article have been found to vary from 0.5 to 2.2% in total alkaloids.

TASTELESS QUININE.

A product is offered in the Southern States as a substitute for quinine, being made by a special patented process, which upon examination is found to be nothing more than crystals of calcium sulphate, containing no organic matter whatever.

(Signed) F. A. THOMPSON,

Detroit, Mich., July 31, 1896.

Chairman.

President—"I received by mail today a communication from Prof. A. B. Prescott regarding his trip to the Minnesota State Pharmaceutical Association. If there are no objections the Secretary will please read it."

The Secretary then read as follows:

DEAN'S OFFICE, UNIVERSITY OF MICHIGAN, }
ANN ARBOR, MICH., August 3, 1896. }

Michigan State Pharmaceutical Association:

GENTLEMEN—By the special permission of your President, I presented your fraternal greetings to the Minnesota State Pharmaceutical Association, in meeting at Minnetonka Lake, June 16. I was present in compliance with a special invitation, seconded by former students of the University of Michigan, and it was an opportunity of fraternal relation between Michigan and Minnesota, well worthy.

to be reported to you. The most cordial and friendly assurances were given me in charge for this Association, and invitation to its members for all meetings. The June meeting was upon a lake-side, one of beauty known to many of you, and you can give the larger return greeting from the vantage ground of the present Michigan meeting, on the converging borders of the greatest of the lakes, where it is to my regret that I cannot be with you this week.

In the Minnesota meeting out-door recreation and festal contests are much depended upon in obtaining the desired attendance. Indeed, I was led to hold my own State of an excellent public spirit, in respect to the numbers at meetings and in discussions. But one thing is the experience everywhere, the advantages of personal acquaintance, and the uniting effect of social enjoyment, are the very most substantial benefits of scientific or professional meetings.

ALBERT B. PRESCOTT.

President—"Gentlemen, what will we do with this communication?"

Mr. Hayes—"I move that it be accepted and placed on record." Carried.

President—"I will now call on Mr. Colman to make the report on the President's address."

Mr. Colman—

Mr. President and Members of the Michigan State Pharmaceutical Association:

GENTLEMEN—Your committee appointed to consider the address of the President would report that we have examined that able and comprehensive paper, and that we fully accord with the sentiments therein expressed.

We find certain suggestions and recommendations to which the President urges that special consideration to be given at this time.

First—He recommends that at the session of this association last preceding the session of our State legislature the pharmacy law be reviewed with reference to determining whether any changes in it are desired.

Second—He recommends that the secretary of the Committee on Trade Interests be paid a salary and that the same be provided for by a fee of an extra \$1 per year from each member.

Third—He recommends that in sending out notices of our state meeting the executive committee shall announce what subjects are to be discussed and, as far as possible, by whom the discussions are to be conducted.

Fourth—He urges that the sale of all poisons shall be confined to the drug trade.

Fifth—He recommends that the formula of all proprietary medicines be printed upon the packages.

The committee recommend that so far as time will permit these recommendations of the president be discussed during this session.

All of which is respectfully submitted,

H. G. COLMAN,
F. W. R. PERRY,
CHAS. MANN,
Committee.

President—"What is the pleasure of the Association regarding this report?"

Mr. Anderson—"I would like to lengthen on that report. It

seems to me that if we are to take action on it intelligently, we should take up part at a time and adjust it, and see what we could do about it. In the first place, take up the pharmacy law. Suppose that goes into effect. It is a very essential matter. We have a good example in our sister State of Ohio as to what can be done if it were carried out. The pharmacists throughout the State are calling for a more strict law, and the time will come when these matters, as in the case of patent medicines, will be brought up and fought at the legislation. Something ought to be done in this Association. This ought to be taken up and discussed. It is a great deal of work to carry out all of the suggestions mentioned in the committee's report, but there is one thing certain, we ought to have a committee of able men to watch the pharmacy law business and bring out and fight anything that has a tendency to fraud."

Mr. Schumacher—"I might say right here as regards a special committee to watch the pharmacy law, I think it very essential to the Association, and if I remember rightly the same matter was discussed before the Board in another association and bears directly on this point. All legislation which has a tendency to effect the pharmacists of this State should be watched, and watched carefully, by a willing and active Committee on Legislation."

Mr. Colman—"I do not think that the suggestions of Mr. Schumacher or Anderson would change matters any in our association. We now have a Committee on Legislation, and a good one."

President—"Are there any further remarks?"

Mr. Davis—"Regarding the selection of an extra committee, it seems to me that the most proper committee to appoint that committee would be the members of the Board of Pharmacy. They certainly were very competent in the selection of those members of the Board. The Governor is supposed to pick out the best and most competent men in the State on pharmacy, and as this matter is very important, it seems to me they would be the proper committee. I make a motion to that effect to bring it before the association, that the committee be composed of the men on the Board of Pharmacy to watch this pharmacy law, and take such action on any matters that may arise from time to time which is necessary to benefit the retail drug trade."

President—"With regard to this legislation committee, in appointing that committee last year I selected all the men from the State Board of Pharmacy, having in view, as Mr. Davis has stated, that they were the proper men to look after the pharmacy law. I appointed on that committee, last year, Mr. Schumacher and Mr. Gundrum, members of the Board of Pharmacy, and Mr. Parker, president of the association the year before."

Mr. Gundrum—"In regard to what our president has just said (that the best way would be to have the Board of Pharmacy look

after it), so far, it has been my experience that it has been no trouble at all to get the Board of Pharmacy to do what is asked of them—I do not speak because I am on the Board, but they are always willing and anxious to do everything they can; yet, although our association has a standing legislation committee, and they should be carefully selected, there ought to be a committee appointed outside of the Board of Pharmacy, composed of members of the M. S. P. A. who are not on the Board of Pharmacy. I for one do not think it a good policy to appoint a Legislation Committee composed entirely of the Board of Pharmacy. I think the President should select a good committee outside of the Board, and can assure you that the Board of Pharmacy will lend their assistance in everything that is legal and fair for them to do.”

President—“As I understand, a motion is before the convention that a Legislation Committee be appointed, as usual, and that this committee be expected to co-operate with the Board of Pharmacy, thus making practically a committee of eight. Are there any further suggestions?”

Mr. Colman reads Section 4 of By-Laws and adds: “It does not seem to me that we need any new Legislative Committee. If we had time to talk over our past legislation we might then find some advice to give the committee; otherwise I do not think it would be a good plan to change matters any.”

Mr. Davis—“I withdraw my motion.”

President—“Are there any further remarks?”

Mr. Anderson—“Did that committee make any report this year?”

Mr. Schumacher—“Mr. Parker is chairman at present of the Legislative Committee, and he is not here. I am also a member, but must confess that I have never known until now the actual requirements of such a committee, but as there was no session of the State Legislature this year, there is no report to make.”

Mr. Gundrum—“I move that we adjourn.” Not supported.

Mr. Colman—“I think it might be well to dispose of the report of the Committee on the President’s Address. We wish to be discharged, or have further discussion on the matter.”

Mr. Anderson—“I move that the report be accepted and the committee discharged.” Carried.

Mr. Russell—“I wish to report for the Executive Committee the following applications for membership, and recommend that they be elected to active membership:

Dr. N. A. Goodwin, Indianapolis, Ind.,
V. W. Cole, Petoskey,
Arthur Hopper, Alpena,
Samuel Cadlip, Iron Mountain,
Eugene S. Upman, Durand,
F. E. Westerveld, Grand Rapids.

"The committee further recommends that parties soliciting applications for membership should exercise more caution, and see that applicants are eligible in reference to the Constitution and By-laws of the M. S. P. A."

Mr. Bugbee—"I move that the Secretary be instructed to cast the ballot of the entire Association, electing the applicants as recommended by Mr. Russell to membership of our Association."

Adopted.

Mr. Gundrum—"I make a motion that we adjourn." Adopted.

THIRD SESSION.

The third session was called to order at 9:15 a. m., Thursday, by the president.

Dr. Ward—"Is the Committee on Prizes ready to make their report, if so, the chairman, Mr. Webber, will let us hear from him.

Mr. Webber—"The Committee on Prizes beg to offer the following report—we have awarded prizes as follows:

For the best paper on pharmacy—Prof. A. B. Stevens.

For the best paper on chemistry—O. C. Sherrard, Ph. C.

For the best paper on advertising—B. Shrouder.

For the best display advertisements—Dr. Geo. J. Ward."

President—"You have heard the report of the committee, gentlemen, what is your pleasure regarding same."

Mr. Webb—"I move that the report be accepted." Adopted.

President—"The election of officers is now in order, this will have to be done by ballot. I will appoint as tellers Messrs. Perry and Church.

Dr. Bailey—"Before the election of officers takes place, I would like to offer as a motion, that Mr. C. W. Dierdorf, whose application is now in the hands of the Secretary, be elected an associate member of our Association without the privilege of the floor, except by special permission of the Chairman of the convention."

President—"It has been moved and supported that Mr. Dierdorf be elected an associate member, if there are no remarks we will proceed to cast the ballot." Elected unanimously.

Mr. Gundrum—"I move that we proceed to the election of president." Carried.

President—"Gentlemen you will please deposit your ballots for President for the coming year."

Mr. Perry—"We find that 15 ballots were cast for President, of which Mr. Webber received 3 and Mr. Phillips 12."

President—"Gentlemen, you have heard the result of the ballots. Mr. Phillips having received the majority of the votes cast is elected President for the coming year."

Mr. Anderson—"I move that the election of Mr. Phillips be made unanimous." Adopted.

President—"You will now prepare your ballots for First Vice-President."

Mr. Church—"For First Vice-President, we find there were 16 ballots cast, Mr. Bugbee received 1; Dr. Bailey, 1; Mr. Mann, 1; and Mr. Webber, 13. Mr. Webber receiving the highest number."

President—"Gentlemen, you have heard the result of the ballots, Mr. Webber having received the majority of the votes cast is elected First Vice-President for the coming year."

Moved by Dr. Bailey that the vote be taken unanimously. Adopted.

President—"Election of Second Vice-President now takes place. We will now hear the report of the tellers."

Mr. Church—"There were 15 votes cast, Dr. Ward receives 2; Mr. Mann, 1; Dr. Bailey, 12."

President—"You have heard the result of the ballots, Dr. Bailey having received the majority of the votes cast is elected Second Vice-President for the coming year."

Dr. Bailey—"I do not feel entitled to the honor of serving an office just now, as this is the only meeting I have ever had the pleasure of attending, and I feel as though you should elect some of the gentlemen here who are in regular attendance."

President—"Possibly, Mr. Bailey, if you are elected we may have the pleasure of seeing you at our next meeting, if so, the action in electing you will be highly commendable."

Moved and supported that the election of Dr. Bailey be made unanimous. Carried.

President—"The next in order is election of Third Vice-President."

Mr. Church—"For Third Vice-President votes were cast as follows: 15 ballots cast, Mr. Main received 12; Mr. Mann, 2; Mr. Coleman, 1. Mr. Main received the highest number."

President—"Gentlemen, you have heard the result of the ballots, Mr. Main having received the majority of the votes cast, is elected Third Vice-President for the coming year."

Motion was made and carried that the election of Mr. Main be made unanimous.

President—"We will now proceed to the election of Secretary."

Mr. Perry—"There were 15 votes cast for Secretary, of which Mr. Mann receives 2; Mr. Church, 1; Mr. Schrouder, 12."

President—"Mr. Schrouder having received the highest number of votes is elected Secretary for next year."

Motion was made by Mr. Main, and supported by Mr. Church, that the election of Mr. Schrouder be made unanimous. Adopted.

President—"The next on the list is the Assistant Secretary for the next place of meeting, this will have to be deferred until the next

place of meeting is decided upon. The next in order is the election of Treasurer."

Mr. Church—"I would like to know if Mr. Dupont has not already been elected permanent secretary?"

President—"He is re-elected every year. Gentlemen you will prepare you ballots for the election of Treasurer."

Mr. Church—"There were 16 ballots cast, Mr. Mann receives 11; Mr. Dupont, 5."

Vote made formal and Mr. Mann elected Treasurer.

The election of the Executive Committee resulted in the nomination and election as follows: A. H. Webber, Chairman. H. G. Colman, Dr. George J. Ward, Prof. A. B. Stevens, F. W. R. Perry.

President—"I think it now a good time to arrange for the next place of meeting."

Mr. Church—"Last year, and for several years previous, this action has always been left in the hands of the Executive Committee, and I do not think it a pleasant duty for them to perform, for this reason I think we ought to take care of it now."

Mr. Gundrum—"Mr. Anderson has some suggestions which I think would be well to give to the Association."

Mr. Anderson—"I think it would be in order before any further remarks are made to read the communications that have been received by the Secretary, offering places for the next meeting so that they will come properly before the Association."

Secretary—"Those papers have been read before, I took the liberty of leaving them at the hotel."

Mr. Anderson—"One communication is from Alpena, with the signature of the Mayor and the President of the Business Men's Association, setting forth the beauties and desirabilities of Alpena as a meeting place. It also bears the signatures of all the retail druggists of that city.

"The other is from the Detroit Convention League, through the Secretary of the Detroit Retail Druggists' Association, Mr. Caldwell, inviting us to meet in that city next year. My idea about it is, we should be very careful in the selection of a place of meeting to get a place where we can get together—we want people at the meeting.

"While Mackinac Island is a beautiful and very desirable place, still it is quite a distance away, and was selected with a view of bringing out our brother druggists to give them a little recreation; but I think we should select a place at a point where we can get a crowd. I would suggest that some place along the St. Clair river would be desirable. Now I wish right here to call your attention to a club of which I am a member, in Detroit. We have a beautiful club house at Grosse Point. It is a charming spot, just far enough away from the maddening crowd to make things pleasant and desirable. There is plenty of ground (I think we have sixteen acres), and

the club house has fully sixty or seventy rooms, so we can easily and comfortably quarter all who come. There are three boats each way every day. And now, in the name of our club, but without its permission, although I am sure they would be glad to have us meet there, providing we had the meeting early in the season, I invite you to hold the '97 meeting at Grosse Point. I think if the meeting was held in June we could get a very good attendance."

Mr. Church—"I could not very well approve of our meeting on St. Clair river next year. Of course we Detroit people know it is a beautiful spot, but I do not think it has the best reputation in the world."

Mr. Perry—"Mr. Church is correct; still I think Grand Point is all right, and I heartily approve of our meeting being held there."

President—"Any further remarks?"

Mr. Colman—"After listening to what has been said, it strikes me very favorable that Grand Point is a good place to have the meeting. It seems to me that taking all into consideration, when we once get there and get a convention assembled, it will be better than meeting in a city, for it will not be so convenient for the members to leave the meeting. I for one am very much in favor of Grand Point."

President—"Mr. Anderson, will you bring that as a motion?"

Mr. Anderson—"I move that the next place of meeting be selected at Grand Point." Not supported.

Mr. Schrouder—"Before any votes are taken in selecting the next place of meeting, I wish to call your attention to the place where we are now meeting. For my part, I am in favor of having this meeting held at Mackinac Island again next year. It is just the place. Here we have recreation and all the possibilities that are conducive to a successful business meeting. This year being an "off" year, we have but twenty-eight members in attendance, but I would be willing to promise that the twenty-eight here will bring a hundred next year. We have found this place truly termed 'The Fairest Spot on God's Green Earth.'" (Applause.)

Dr. Bailey—"I am with Mr. Schrouder for Mackinac Island, and would like to ask those in favor of Grand Point if that place is, like Mackinac, the hub of the universe?"

Mr. Colman—"Mr. Anderson with his invitation has specified that we must hold our meeting early in the season. We should be careful to consider that matter when we consider his invitation."

Mr. Schumacher—"I think if we had our meeting in June we would have a much larger attendance than at any other time in the year."

Mr. Hayes—"I wish to speak a word in favor of accepting the invitation from our Alpena brothers. The town is beautifully situated on the shores of Lake Huron; they have one of the best hotels in

the State; they have fine sailing yachts, tally-ho coaches, and beautiful inland scenery. The druggists there are very hospitable, as are also the citizens. They are quite anxious to have us come there, and as that part of the State has never been recognized by our Association, as far as holding meetings is concerned, I think we should not hesitate to choose Alpena. Our Association should entertain itself, and not again burden the manufacturers with the costs of entertaining, as has been previously done many times. I think the places of meeting of the M. S. P. A. should be changed every year, even if next year takes us to St. Ignace."

Mr. Church—"Mr. Hopper, one of the new members just elected, is one of the most popular pharmacists in Alpena, and I approve of Mr. Hayes' calling the attention of the M. S. P. A. to their polite invitation; but I cannot say that I am in favor of throwing the burden of entertaining this Association on the shoulders of the six or seven retail druggists of that city. It's asking too much."

Mr. Main—"I am not in favor of the Association meeting in the northern part of the State again next year. The expense to the ordinary retail druggist is altogether too much. I favor Grand Point."

Dr. Bailey—"Somebody mentioned St. Ignace as a place of meeting next year, and I heartily endorse that idea. St. Ignace is one of the oldest and most historical points in the upper province, besides Michilimackinac. I invite you as an Association to meet at Cliff Side, St. Ignace, and hope you will find it convenient and expedient to meet there. It is a picturesque place, with all the scenery of Michilimackinac except Arch Rock, and I intend to have an Arch Rock there in time for the next meeting. (Laughter.) I will offer you the use of all the ground, buildings and tents free of expense, and get you rates at the hotels as low as from one to two dollars per day. There are miles and miles of beautiful drives, such as we have on this island, and it has one of the best harbors on the lakes. Firstly I am in favor of Mackinac Island, but my next choice is St. Ignace, and I ask you to consider my proposition. (Applause.)

Mr. Schumacher—"I move that an informal ballot be taken for the next place of meeting." Carried.

Tellers—"There are 16 votes cast, 5 for Alpena, 3 for St. Ignace, 3 for Grand Point, 3 for Mackinac Island, and 2 for Lansing."

President—"We will proceed to another ballot."

Mr. Mann—"I would like to say that I hope you won't vote for a place in this section of the country. I believe we do not want to come up here again next year. We ought to go to a more central point. If we select a place somewhere in the vicinity of Detroit, or some such place, I believe we could get a good attendance."

Mr. Perry—"I think that Lansing is the best place in the State for our next meeting. It is a central point and we ought to get a good crowd."

Mr. Bugbee—"As the matter of Lansing is brought up, I would like to make this suggestion along the line of expense in getting the members together. If our Association lives, we have got to have additional members; we have got to have more interest taken in the meetings, and a larger attendance. One of the expenses of meeting here, and when the meeting was held in Detroit, has been the renting of a place in which to hold the convention; it cuts quite a hole in the treasury of the Association. If we hold our meeting at Lansing, in the Capitol, we could probably get it without expense. There are matters of interest about Lansing that I think would be interesting to ourselves—for instance, the different institutions there, the Agricultural College, Industrial School, etc. While it might not be so well to meet there in hot weather, we might have a larger attendance on account of its central location. At least the members would not have the excuse that they could not afford to go there."

President—"You will again deposit your ballots for the next place of meeting."

Mr. Perry—"There were 15 ballots cast, Lansing 11, Alpena 2, and St. Ignace 2."

President—"Gentlemen, you have heard the result of the ballot, the next place of meeting designated is Lansing. The question now before you is the time for holding that meeting."

Secretary—"I move that the time be left to the discretion of the Executive Committee." Carried.

President—"We must now proceed to fix up our Committee on Trade Interests."

Mr. Bugbee—"I make a motion that the Secretary cast a ballot for the entire Association, electing C. N. Anderson, J. K. Clark and O. Eberbach as members of the Committee on Trade Interests for the ensuing year." Carried.

President—"Is there any further business to come before the Association? I believe the report of the Secretary and Treasurer has not yet been given, we will have that report now."

Secretary—"I will first read the Treasurer's report which I received by mail this morning."

DETROIT, MICH., Aug. 1st, 1896.

TREASURER'S REPORT.

RECEIPTS.

1895.			
July 17.	To cash, balance on hand.....		\$ 1 80
Sept. 7.	To cash.....	\$21 45	
1896.			
Feb. 6.	To cash.....	75 00	96 45
			\$98 25

DISBURSEMENTS.

1896.		
Sept. 16.	By paid warrant No. 53	\$21 45
1896.		
Feb. 8.	By paid warrant No. 54.....	50 00
Feb. 13.	By paid warrant No. B1.....	4 00
Feb. 14.	By paid warrant No. B2.....	14 00
	Cash on hand.....	\$89 45
		8 90
		\$98 25

Respectfully submitted,

W. M. DUPONT.

Next is my report as Secretary:

SECRETARY'S REPORT.

August 6, 1896.

Received from F. A. Thompson.....	\$ 33 25
Receipts, dues, renewal.....	261 00
Profits on Proceedings.....	29 86
Contribution from Fairchild Bros. & Foster.....	5 00
	\$322 11

DISBURSEMENTS.

Sept. 16.	Paid by warrant No. 53.....	\$ 21 45
Sept. 8.	Paid by warrant No. 54.	50 00
Sept. 13.	Paid by warrant B1.....	4 00
Sept. 14.	Paid by warrant B2.....	14 00
Aug. 6	Secretary's Expenses (Itemized bill herewith)	45 83
Aug. 6.	Part of Secretary's salary.....	186 83
		\$322 11

President—"Gentlemen, you have heard the report of the Secretary and Treasurer, and what is your pleasure regarding same?"

Mr. Anderson—"I move that the reports be accepted." Carried.

President—"I think that it would now be in order for the new officers to take their positions. If there is no objection, I will be happy to present to you our President-elect. Before retiring, I desire to thank the members of our Association for the courtesy and kindness shown me during the past year, and hope that Mr. Phillips will have as good and fair dealings as I did during the past year. Allow me to present to you Mr. Phillips, of Armada, your President-elect."

Mr. Phillips—"I thank you very heartily for the honor you have bestowed upon me, in electing me President of this Association. I am not much of a speech maker, but can assure you that I will use my best efforts to make the meeting of 1897 a success, and truly trust that my efforts will be supplimented by the members of our Association." Applause.

Mr. Anderson—"I think it now the right time that we should pass resolutions of thanks for the many favors we have received

and I move you, Mr. President, that we as an Association tender our sincere thanks to the following parties for favors received:

Our retiring President, Dr. Ward.

And also the following resolutions:

Be it Resolved, That the thanks of the Association be tendered to Mr. M. G. Bailey, Local Secretary, and Dr. J. R. Bailey; Capt. Thayer of the Mackinac Island State Park Commission, for their courtesy and kind attention to the welfare and interests of this Association, and their personal attention to the members, which has made this meeting a pleasure long to be remembered.

Be it further Resolved, That this Association tender their hearty thanks to those who have sent contributions for prizes, and given their time and attention to the success of this meeting, as follows:

Messrs. Fairchild Bro. & Foster.

Eli Lilly & Co.

Mr. R. B. Roe, representing the Pleasant Valley Wine Co.

John S. Wright.

Dr. N. A. Goodwin.

E. N. Lightner & Co.

Seeley Manufacturing Co.

Mr. Anderson's motion was unanimously carried and the resolution adopted.

Mr. Schrouder—"I beg to offer a motion that we tender a special vote of thanks to 'That Man Church' for his extra efforts to make this meeting a social success." Unanimously carried.

President—"Is there any further business on your table, Mr. Secretary?"

Secretary—"There is not, Mr. President."

Mr. Church—"I move that we adjourn." Supported.

Convention adjourned *sine die*.

U. S. Pharmacopœial Pepsin Standard Compared with Foreign Pharmacopœial Standards.

BY C. C. SHEPPARD, PH. C.

So much has been said at State and National Conventions and in pharmaceutical journals about pepsin testing that I had considerable hesitancy in presenting this item of current pharmaceutical history. A very extended amount of experimental and practical work, based upon numerous inquiries from the foreign countries mentioned below, prompted me to furnish this compilation.

The points of information desired are the outgrowth of a considerable demand for the better grade of American pepsins. It is desirable, therefore, to know what a U. S. Ph. 1-3000 pepsin will test according to the various European pharmacopœias, or the strength indicated by their pepsins when assayed according to the U. S. Ph. method, together with the sugar of milk necessary to reduce a U. S. Ph. article to the various standards.

By consulting the table it will be noticed there is a wide variation in the time allotted, temperature, amount, kind and condition of albumen or proteids, acidity, kind of sieve, and percentage of pepsin used in applying the test. Any one of these variations causes a greater or less difference of end results.

The last column but two shows the approximate strength when reduced to the U. S. Ph. standard. The last column but one gives the approximate strength of a U. S. Ph. pepsin when tested by the various other standards, and the last column indicates the amount of sugar of milk necessary to reduce a U. S. Ph. pepsin to the other standards.

PHARMACOPŒA AUSTRIACA.

Pulvis subtilis, albus vel parum flavescens, odoris et saporis paene expers, in aqua non limpidè solvendus, guttis aliquot acidi hydrochlorici adjectis soluticè limpidior evadit.

Pepsini decigramma unum, in centum quinquaginta grammis aquæ et duobus cum dimidio grammis acidi hydrochlorici diluti solutum, grammata decem albuminis ovi cocti, subtiliter contriti, intra quatuor ad sex horas calore 40° sacpini convuassando ad liquorem paulum opalescentum solvat.

TRANSLATION.

AUSTRIAN PHARMACOPŒIA.

A fine white powder, or slightly yellowish, of no taste or smell, does not form a clear solution in water, but a few drops of hydrochloric acid makes the solution quite clear.

One decigramme of pepsin with 50 grammes of water and 2½ grammes of hydrochloric acid, 10 grammes of albumen of boiled egg well pounded, left to stand for six hours at a temperature of 40° will leave the solution only slightly turbid.

PHARMACOPŒA BELGICA.

Massa squamosa, grumosa nel pulverulenta e cinero alba, odoris animalis non putridi, saporis fere nullius, sere humido mutabilis cum aqua solutionem turbidam præbans.

Li 25 centigrammata pepsinæ cum 25 gram. aquæ, 40 centigram. acide lactici et 10 gram. fibrinæ madidæ commisceas, æ per 12 horas ad temperaturum 45° ebapores, liquorem obtines residuum cinereum valde exiguum relinquentem, et acido nitrico nullum præcipitatum edentem.

TRANSLATION.

BELGIAN PHARMACOPŒIA.

A squamous substance, either amorphous or in powder, and of greyish white color, has no putrid animal smell or any taste.

It is affected by humid atmosphere and forms a turbid solution with water.

If 25 centigrammes of pepsin are dissolved in 25 grammes of water, and to these 40 centigrammes lactic acid and 10 grammes of moist fibrine are added, and left to evaporate for twelve hours, at a temperature of 45°, a greyish solution will be the result, which is not precipitated by nitric acid.

BRITISH PHARMACOPŒIA.

PEPSIN.

A preparation of the mucous lining of the fresh and healthy stomach of the pig, sheep or calf. It may be prepared as follows:

The stomach of one of these animals recently killed having been cut open and laid on a board with the inner surface upwards, any adhering portions of food, dirt, or other impurity are to be removed and the exposed surface slightly and rapidly washed with a little cold water; the cleaned mucous membrane is then to be scraped with a blunt knife or other suitable instrument, with some pressure, and the viscid pulp thus obtained is to be immediately spread over the surface of glass or glazed earthenware and quickly dried at a temperature not exceeding 100° F. (37.8° C.) The dried residue is to be reduced to powder and preserved in a stoppered bottle.

Characters and Tests.—A light yellowish-brown powder, having a faint but not disagreeable odour and a slightly saline taste, without any indication of putrescence. Very little soluble in water or spirit. Two grains of it with an ounce of distilled water, to which five minims of hydrochloric acid have been added, form a mixture in which at least 100 grains of hard-boiled white of egg, passed through wire gauze of 36 meshes per linear inch and made of No. 32 brass or copper wire, will dissolve on their being well mixed, digested, and well stirred together for thirty minutes at a temperature of 130° F. (54.4° C.)

Dose.—Two to five grains.

PHARMACOPŒIA DANICA, 1893.

Et fnt graalighvidt Pulver, der Eugter avagt, ejendommeligt, og hyppigt amager lidt sodligt.

Ved at ryste 1 Del Pepsin med 100 Dele Vand faaes en svagt surt reagerende, kun lidet uklar Vaedske, som bliver klar ved Tilsætning af en ringe Maengde Saltsyre. Denne Oplosning skal holde sig klar ved Kogning og ved Blanding med sin lige Vaegt Vinaand.

Pepsin Skal hunne oplose 100 Gange sin egen Vaegt Aeggehvide, hvilket proves saaledes.

Et Honseæg lægges i ti Minutter i kogende Vand, og Aeggehviden grides efter af-koling igjennem Ligte Nr. 10. Af den saaledes Eehandlede A-Eggekvide Elandes 10 Grm. med 100 Grm. Vand paa 50 og 30 Draaber Saltsyre; derpaa tilsættes 0.1 Grm. Pepsin, og Blandingen henstilles med 45° under hyppig Omrøring med et Thermometer. Inden to Timer sjal Aeggehviden være opløst paa mogle uhetydelige, hvidlige Hinder nær.

Opbevares i et vel tillukket Kar.

TRANSLATION.

DANISH PHARMACOPEIA, 1893.

A fine greyish-white powder with a peculiar weak smell and taste, and is frequently somewhat sweetish. By mixing one part of pepsin with 100 parts of water a somewhat turbid solution is obtained that has a slight acid reaction; it becomes clear if a small quantity of muriatic acid is added to it. The same effect is obtained by boiling the liquid and adding to it a similar quantity of alcohol. The pepsin can dissolve 100 times its own weight of the white of egg, which can be demonstrated in the following manner:

An egg is placed for ten minutes in boiling water and the white, when cool, pounded and passed through a sieve, No. 10. Of the white of the egg thus treated, 10 grammes are mixed with 100 grammes of water at 50° C. and 30 drops of muriatic acid, to which is then added 0.1 grammes of pepsin and the mixture kept at 45° C., stirring it frequently with the thermometer. At the expiration of two hours the white of the egg will be completely dissolved, there being scarcely any particles of albumen left. It must be kept in a well stopped bottle.

PHARMACOPÉE FRANÇAISE.

PEPSINE—PEPSINA.

La pepsine medicinale constitue une poudre d'un blanc grisâtre qui est un mélange de pepsine extractive et d'amidon. Elle a une odeur qui rappelle franchement celle de la presure, mais qui n'a rien de putride. Elle est partiellement soluble dans l'eau.

La pepsine extractive se retire des estomacs de pore, ou encore des caillottes de mouton ou de veau. Elle doit se dissoudre dans l'eau sans laisser de résidu sensible.

Essai.—La pepsine medicinale, en poudre, doit répondre à l'essai suivant:

Introduisez dans un petit flacon à large ouverture—

Pepsine medicinale.....	0 gr. .50
Eau Distillée.....	.60 grammes
Acide chlorhydrique officinal.....	0 gr. .60
Fibrine de porc, lavée et fraîchement essorée.....	10 grammes

Placez le flacon dans une étuve à eau chaude dont la température devra être maintenue à 50, et faites digérer pendant six heures en ayant soin d'agiter fréquemment jusqu'à dissolution complète de la fibrine, et puis toutes les heures environ. Ten centimètres cubes de la liqueur refroidie et filtrée ne devront pas se troubler par l'addition de 20 à 30 gouttes d'acide azotique; l'alcool déterminera au contraire un précipité blanc abondant.

Obs.—La pepsine extractive doit répondre à ce mode d'essai à la dose de 0 gr. 20 centigrammes seulement.

TRANSLATION.

PHARMACOPŒIA FRANÇAISE.

PEPSIN.

Medicinal pepsin consists of a greyish-white powder which is a mixture of "Pepsin Extractive" and starch. It has an odour which recalls that of rennet but possesses nothing whatever of a putrid smell. It is partially soluble in water.

Pepsin Extractive is obtained from the stomach of a pig, and also from the rennet of sheep or calves. It ought to dissolve in water without leaving any sensible residue.

Test.—Medicinal Pepsin in powder should respond to the following test:

Introduce into a small bottle with a large opening—

Medicinal Pepsin.....	0 gr. .50
Distilled water.....	.60 grammes
Hydrochloric acid.....	0 gr. .80
Pork fibrine recently washed and dried.....	10 grammes

Place the bottle in a hot water bath, the temperature of which ought to be maintained in a temperature of 50°, and let it digest for six hours, taking care to agitate it frequently until the fibrine is completely dissolved, then about every hour ten centimetres of the liquor, cold, ought not to become cloudy by the addition of twenty to thirty drops of azotic (nitric) acid.

Observe.—Pepsin Extractive ought to respond to this test in the dose of 0.20 centigrammes only.

ARZNEIBUCH FÜR DAS DEUTSCHE REICH.

PEPSINUM—PEPSIN.

Feines, fast weisses, nur wenig hygroskopisches Pulver, von eigenthum-lichem, brodartigem Geruche und suglichem, hinterher etwas bitterlichem Geschmacks. 1 Thiel giebt mit 100 Theilen Wasser eine kaum Sauer reagirende schwach trube Lösung.

Von einem Ei, welches 10 Minuten in Kochendem Wasser gelegen hat, wird das erkaltete Eiweiss durch ein zur Bereitung von grobem Pulver bestimmtes Sieb gerieben. 10 g. dieses zertheilten Eiweisses werden mit 100 ccm warmen Wasser von 50° und 10 Tropfen Salzsäure gemischt, und dann 0.1 g. Pepsin hinzugefügt. Wird dann das Gemisch unter wiederholten Durchschütteln eine Stunde bei 45° stehen gelassen, so muss das Eiweiss bis auf wenige, weissgelbliche Häutchen verschwunden sein.

TRANSLATION.

GERMAN PHARMACOPŒIA.

PEPSINUM—PEPSIN.

A fine, almost white and but slightly hygroscopic powder with an odor similar to bread and taste sweet, afterwards somewhat bitter. One part dissolves in 100 parts of water, giving a somewhat turbid solution, with a scarcely acid reaction.

The white from an egg which has lain for ten minutes in boiling water, when cold, to be rubbed through a sieve for coarse powders. Ten grammes of this divided albumen to be mixed with 100 ccm. of warm water at 50° and 10 drops of hydrochloric acid, to which is then added 0.1 gramme pepsin. After standing during 1 hour at 45°,

having been shaken repeatedly during that time, the albumen must have disappeared with the exception of a few yellowish-white skins.

PHARMACOPEA HELWETICA.

PEPSINUM.

Pepsine. Pepsina. Pepsin.

Poudre fine, presque blanche, souvent un peu grumeleuse, possédant une odeur particulière de levain et une saveur douceâtre, quelquefois un arrière-goût amer et sale. Lorsqu'on broie 1 gr. de pepsine avec un peu d'eau tiède, vu'on étend la liqueur à 100 p. avec de l'eau et que l'on agite un peu, on doit obtenir une solution d'une réaction tout au plus légèrement acide, jamais alcaline. Cette solution est légèrement opalescente; quelques gouttes d'acide chlorhydrique la rendent suffisamment claire pour qu'elle paraisse limpide par transparence. Elle ne doit pas se coaguler par la cuisson et ne doit pas, non plus, précipiter par l'alcool, elle doit tout au plus se troubler.

L'essai de la pepsine doit se faire comme suit; Faites cuire un oeuf, pendant 5 minutes, dans l'eau, passez-en le blanc refroidi à travers le tamis III. Melez, en broyant légèrement, 10 g. de ce blanc d'oeuf avec 100 g. d'eau à 50° et 2 g. d'acide chlorhydrique dilué, ajoutez 1 dg. de pepsine délayée dans de l'eau et faites digérer à 40° en ayant soin d'agiter fréquemment. Après 1 heure, au plus après 2 heures, l'albumine doit être dissoute sauf, peut-être, quelques petits flocons jaunâtres. Si l'on fait digérer le mélange pendant 5 heures encore, quelques cm. de la liqueur, additionnées de 20 à 30 gouttes d'acide azotique dilué, devront à peine se troubler.

TRANSLATION.

PHARMACOPIA OF SWITZERLAND.

A fine powder, almost white, often a little clotty, possessing a peculiar odor of leaven, has a sweetish taste, sometimes an after bitter and salt taste. When one gramme of pepsin is mixed with a little warm water and the mixture diluted to 100 parts and slightly shaken, a solution should be obtained having a reaction slightly acid, never alkaline. This solution is a little opalescent; several drops of hydrochloric acid renders it sufficiently clear for it to appear limpid. It ought not to coagulate on warming and ought not to precipitate on the addition of alcohol. At the utmost it might become turbid.

The test for pepsin is made as follows: Boil an egg for five minutes in water. Rub the white of the egg, when cold, through sieve No. 3. Mix, warming slightly, 10 grammes of the white of the egg with 100 grammes of water, at a temperature of 50°, and 2 grammes of dilute hydrochloric acid. Add one deci-gramme of pepsin, dissolve in the water and allow it to digest at 40° C., taking care to shake it frequently. After one hour, or at the most two hours, the albumen should be dissolved with the exception, perhaps, of a few yellowish flakes. If the mixture is allowed to digest for five hours longer and then twenty to thirty drops of dilute nitric acid added to a few cm. of the mixture, it ought to be scarcely turbid.

FARMACOPEA UFFICINALE DE ITALIA, 1892,

La pepsina si ha in commercio, solida, amorfa, polverulenta o granulosa, o anche in iscagliette di color giallognolo o grigiastro. Talora e di consistenza estrattiva o di pasta molle, gialliccia e vischiosa. Queste varietà hanno peraltro caratteri comuni; posseggono cioè

lieve odore particolare, sono solubili nell' acqua e nella glicerina si conserva lungamente. Le soluzioni son precipitate dall acetato di piombo, non dall'acido sia solo, sia col Ferricianuro Potassico, non dall'acido tannico, ne dal bicloruro di mercurio. La soluzione si altera verso 60°.

Verso 37° la pepsina, sotto l'influenza di alcuni acidi deluiti fra i quali primeggia il cloridrico, scioglie le sostanze albuminose e le converte in peptone.

Gr. 10 di albume d'uovo coagulate e tagliate in pezzetti mescolati con gr. 100 d'acqua gr. 0.25 di acido cloridrico e gr. 0.50 di pepsina, mantenuti a 38°-40°, debbono dare, dopo circa 12 ore, un liquido, che filtrato non precipiti per abolizione, non coll'acido nitrico aggiunto a poco a poco, e neppure quando venga neutralizzato con carbonato di ammonio.

N. B.—Per meglio conservarla, si mescola con equal peso di amido (pepsina amilacea) o di lattosio. Le ne fa il saggio come sopra, raddoppiandone la quantita.

TRANSLATION.

ITALIAN PHARMACOPŒIA.

The pepsin of commerce is a solid, amorphous substance, either powdered or granulated, or else in minute scales, and of a yellowish or greyish color. It occurs, also, sometimes as a soft paste or a more or less viscous nature. But the characteristic properties of all these varieties are the same. They are soluble in water or glycerine, but not soluble in either alcohol or ether. Dissolved in glycerine it keeps for a long time. The solutions of pepsin are precipitated by acetate of lead, but neither by acetic acid, nor by a mixture of the latter with ferrocyanide of potassium, nor by tannic acid, nor by perchloride of mercury. The solution changes at about 60° C.

At a temperature of 37° C. and in the presence of some diluted acids, especially of muriatic acid, pepsin dissolves albuminous substances, converting them into peptone.

Ten grammes of coagulated white of egg, cut in minute pieces and mixed with 100 gms. of water, 0.25 gms. of muriatic acid and 0.50 gms. of pepsin, will, after having been kept for 12 hours at a temperature of 38°-40° C., form a liquid that, after filtration, will not become precipitated by boiling, nor by the gradual addition of nitric acid, nor even when neutralized by carbonate of ammonia.

N. B.—For preserving it, it is best to mix it with an equal quantity of starch (pepsina amilacea). The test is made as above, but with double the quantities named.

PHARMACOPŒA NORVEGICA, 1895.

Gulagtigt eller graahvidt pulver af eiendommelig lugt og undertiden lidt sodlig smag 1 del pepsin giver ved rystning med 100 dele vand en svagt surt reagerende, noget uklar vaedske, der ved tilsætning af nogle draaber saltsyre bliver klar. Opløsningen skal gælde sig klar ved kogning og ved blanding med sin lige vægt spiritus.

Pepsin skal kunne opløse 100 gange sin egen vægt eggehvide, hvilket proves paa følgende maade:

10 gram eggehvide af et honseeg der har ligget 10 minutter i kogende vand, rives til grout pulver og blandes med 100 gram vand af 50°, 30 draaber saltsyre og 0.1 gram pepsin, hvorefter blandingen hensesættes under hyppig omrøring ved en temperatur af 45°. Inden

2 timer maa eggehviden vaere oplost paa enkelte hvidlige hinder naer.

TRANSLATION.

NORWEGIAN PHARMACOPEIA.

A yellowish or greyish powder of a peculiar smell and occasionally of a somewhat sweetish taste. One part of pepsin, when mixed with 100 parts of water, produces a turbid solution that has a weak acid reaction, which becomes clear when a few drops of muriatic acid are added to it. The same effect is produced by boiling the liquid and mixing it with an equal quantity of alcohol.

The pepsin will dissolve a hundred times its own weight of albumen, which is demonstrated in the following manner:

Ten grammes of the white of an egg, after being kept for ten minutes in boiling water, is pounded into a thick paste and mixed with 100 grammes of water at 50° C. and 0.1 gramme of pepsin and 30 drops of muriatic acid, after which the mixture is kept at a temperature of 45° C., stirring it frequently, and at the expiration of 2 hours the white of the egg will be completely dissolved, leaving scarcely any whitish particles behind.

FARMACOPEA ESPANOLA, 1884.

Umo gramo de pepsina medicinal debe dissolver 10 gramos de fibrina seca, haciendo el ensazo siguiente:

Agua destilada.....	50. gramos
Acido chorhidrico de 20°.....	05 "
Pepsina medicinal.....	1. "
Fibrina seca.....	10. "

Coloquense todas estas sustancias en un frasco de boca ancha, y expóngase la mezcla en una estufa a la temperatura de 50°, durante seis horas, agitando de cuando en cuando. Al cabo este tiempo, se ha de disolver completamente la fibrina.

SPANISH PHARMACOPEIA, 1884.

A gramme of medicinal pepsin should dissolve 10 grammes of dry fibrin when submitted to the following test:

Distilled water.....	50. grammes
Hydrochloric acid of 23°.....	0.5 "
Medicinal pepsin.....	1. "
Dry fibrine.....	10. "

Pour the whole into a wide-mouthed bottle and place the mixture in a stove heated to a temperature of 50°, for 6 hours, shaking it from time to time. At the expiration of that time the fibrine will have dissolved completely.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
															PEPSIN	SUGAR MILK
1	AUSTRIAN.....	1-100	40° C.	H. M. 6:00	.90 HCL	50 CC	Boiled. No time stated	Egg Albumen	Well Pounded.	10 Gms.	.1 Gm.	1°	1-100	1-2500 to 1-3000	Gms. 1-11	28 10 11
2	HELVETIC.....	1-40	45° "	12:00	Lactic Acid.	25 "	No time stated	Moist Fibrine	Not stated.	10 "	.25 "	2°	1-15	1-250	6	24
3	BRITISH.....	1-50	54.4°	.30	.329HCL	30 "	Hard-boiled No time stated	Egg Albumen	Passed thro' 30 m. Sieve	6.48 "	.129 "	2°	1-600	1-2000	12.3	28 1-3
4	DANISH.....	1-100	45° "	2:00	.505 "	100 "	No time stated	"	Passed thro' No. 10 Sieve	10 "	.1 "	1°	1-300	1-8500	6-35	29 29-35
5	FRENCH.....	1-20	50° "	6:00	.334 "	60 "	No time stated	Pork Fibrine	Mesh not K'n	10 "	.5 "	5°	1-15	1-1500	2-2.7	27 7-9
6	GERMAN.....	1 100	45° "	1:00	.168 "	100 "	10 minutes	Egg Albumen	Coarse Powder.	10 "	.1 "	1°	1-500	1-1200 to 1-1500	1-7-8	28 1-8
7	(Switzerland) HELVETICA.....	1-100	40° "	.30	.20 "	100 "	5 minutes	"	No. 3 Sieve	10 "	.1 "	1°	1-400	1-3000 to 1-1800	6 10	29 13 19
8	ITALIAN.....	1-20	38 40°	12:00	.08 "	100 "	Coagulated No time stated	"	Cut in minute Pieces.	10 "	.5 "	5°	1-10	1-2000	1-2-3	28 1-3
9	(Norway) NARVEITIC.....	1-100	45° "	2:30	.505 "	100 "	10 minutes	"	Mashed to a Paste.	10 "	.1 "	1°	1-300	1-3000	3-32	29 29-32
10	SPANISH.....	1-10	50° "	6:00	.11 "	50 "	No time stated	Dry Fibrine	Not stated	10 "	.1 "	10°	1-8	1-3400	80	00
11	U. S. PR.....	1-300	38 40°	6:00	.20 "	100 "	15 minutes	Egg Albumen	Passed thro' 30 m. Sieve.	10 "	.00335 "	67-200	1-3000	1-3000		

Column *M* shows the approximate strength of the foreign pharmacopœial pepsins when submitted to the U. S. Ph. test.

Column *N* shows the approximate result of a pepsin which assays 1-3000 according to the U. S. Ph. test when submitted to the respective tests of other pharmacopœias.

Columns *G* and *H* are sufficiently self-explanatory.

The rapidity of the activity of pepsin does not bear a uniform ratio with the increase of temperature up to certain limits; the same is true in regard to acidity. About the most satisfactory degree of dilution for 10 gms. of albumen is 100 cc.

There is practically no difference in the digestibility of egg albumen which has been kept in boiling water from 5 to 60 minutes.

The table illustrates the fact that no uniformity prevails in the various countries relative to the assay of pepsin, and the various schemes adopted are purely arbitrary, without any reference to the theoretical or real activity of the gastric juice. It is surprising, too, how crude some of the foreign pharmacopœial tests are, when we consider the number of able chemists those countries can produce. But I presume they may claim that any test, arbitrary or otherwise, which will show a uniform comparative value, regardless of absolute energy, is just as good from a commercial standpoint as one based upon experimental scientific facts. I do not think, however, that it is a safe principle to adopt, because it furnishes a precedent for similar careless methods of standardizing more energetic chemical and pharmaceutical products. The claim that the same dose of pepsin, whether it assays 1-1000 or 1-10,000, is usually administered is a lame excuse. It is, therefore, rational to govern the dose according to the activity. If the dose of a 1-1000 is 10 grains, the dose of a 1-10,000 pepsin should be 1 grain. Pepsin, like other unorganized ferments, is capable of a definite amount of absolute energy, and there is no reason why the dose should not be adjusted according to its digestive strength. We, like the physician, should consult the well-being and economy of our customers, and patient or consumer, as well as the trade features of the subject.

TINCTURE OF IODINE.

During the close of the past year, the State of Ohio (under the pure food and drug law) commenced legal proceedings against several pharmacists of Toledo for selling tincture of iodine that was below the U. S. P. standard.

One of the defendants sent a sample of the tincture to the chemical laboratory for analysis. The writer found upon examination that the sample contained only 5.32 per cent. of free iodine, instead of about 7 per cent. as required by the U. S. P. Upon further examination the tincture was found to contain hydriodic acid, equivalent to 1.64 per cent. of free iodine. This statement, together with the testimony of the defendant that he prepared the tincture strictly according to the requirements of the U. S. P., and the fact that the Pharmacopœia gives no directions for the preservation of the tincture, cleared the defendant.

Several tinctures from different stores in our own State were examined with the following results:

	IODINE AS		
	FREE IODINE	HYDRIODIC ACID	TOTAL IODINE.
No. 1.	6.87	1.64	8.51
No. 2.	6.48	1.17	7.65

No. 3.	6.1	1.65	7.75
No. 4.	5.7	1.46	7.16
No. 5.	7.8	2.00	9.8
No. 6.	5.27	1.57	6.84
No. 7.	3.76	0.14	3.90
No. 8.	6.54	1.13	7.67
No. 9.	6.62	0.04	6.66
No. 10.	4.98	0.02	6.00

No. 1 was a tincture prepared from a saturated alcoholic solution of iodine, by estimating the amount of iodine, and adding alcohol to bring it to the strength of seven per cent. The great variation in the total amount of iodine found may be attributed to carelessness in the method of manufacture.

The Pharmacopœia directs that seventy grammes of iodine be rapidly reduced to a coarse powder, and transferred at once to a graduated bottle. Rinse the mortar with several successive portions of alcohol, and pour the rinsings into a bottle. Then add alcohol, shake the bottle occasionally until the iodine is dissolved and the finished tincture measures one thousand cubic centimeters.

The latter part of the directions are frequently neglected. The powdered iodine, or in some cases the crystals without powdering, are placed in the shelf bottle and a measured quantity of alcohol added, the bottle shaken a few times, and placed upon the shelf without regard to the complete solution of the iodine. The result is that the first customer obtains a very weak tincture, while the customer receiving the last of the bottle obtains a very strong tincture.

A slight modification of the method proposed by the writer in 1888 (Pharmaceutical Era, Vol. 2, page 25) insures a perfect solution of the iodine before any is dispensed, and the loss of iodine during pulverization is materially reduced as the sharp surface of the sand or broken glass aids pulverization. The method is as follows:

Triturate the iodine with three times its weight of coarsely powdered glass, or washed sand, until the iodine is reduced to fine powder. Place a pellet of cotton in the bottom of a long glass tube or a very narrow percolator. Add the mixture of iodine and sand. Pass alcohol through the percolator until the iodine is dissolved and finally add alcohol to the required amount. Five or ten cc. of alcohol should be added to the receiver before percolation commences, to prevent the crystallization of the iodine from the first portion of the saturate solution which comes from the percolator.

The causes of change from free iodine to hydriodic acid will be reported upon later. A number of experiments have already been made and others are under way, but not in condition to be reported upon at present.

A. B. STEVENS,

Ann Arbor, Mich.

July 1, 1896.

Constitution and By-Laws.

Adopted at Petoskey, Michigan, July 13, 1887.

PREAMBLE.

Whereas, Organization, concert of action, and comparison of ideas are necessary to the advancement of any cause, and believing that a State Pharmaceutical Association will accomplish these objects: therefore

Resolved, That we, druggists of the State of Michigan, whose names are hereunto attached, in compliance with an act entitled, An Act to Organize the Reputable Pharmacists of the State of Michigan into an Association, to be known as the Michigan Pharmaceutical Association, approved April, 1887, do hereby organize ourselves into such Association, and adopt the following Constitution and By-laws:

ARTICLE I.

This Association shall be called the Michigan State Pharmaceutical Association.

ARTICLE II.

The object of this Association shall be to unite the reputable pharmacists and druggists of this State, to improve the science and art of pharmacy, to elevate its standard, and ultimately, to restrict the practice of pharmacy to properly qualified pharmacists, and to promote by all legitimate means the business interests of its members.

ARTICLE III.

MEMBERSHIP.

Every pharmacist of good moral and professional standing, whether in business on his own account or employed by another, and teachers of pharmacy, materia medica, chemistry and botany, who may be specially interested in pharmacy, shall be eligible to membership.

ARTICLE IV.

OFFICERS.

The officers of this Association shall be a President, three Vice-Presidents, a Secretary, an Assistant Secretary, to be selected from the place of next meeting, a Treasurer, and an Executive Committee of five members, all of whom shall be elected by ballot at the third sitting of the regular annual meeting of the Association, and to serve until their successors are elected.

There shall also be elected a Committee on Trade Interests of seven members, who shall serve three years or until their successors.

are elected. Three members shall be elected in 1896, two in 1897, two in 1898, and so on in rotation.*

ARTICLE V.

DUTIES OF OFFICERS.

SECTION 1. The President, or in his absence or inability to serve, the Vice-Presidents in their order, shall preside at all meetings of the Association, until the close of such meetings; call special meetings at the written request of twenty-five members; fill all vacancies that may occur in the offices of the Association between the annual meetings; shall present at each meeting a report of the Association, and perform such other duties as pertain to the office.

SEC. 2. The Secretary shall keep a record of all the proceedings of the Association. He shall keep a roll of the names of the members, with their residence, date of admission, and any subsequent changes. He shall read all communications, conduct all correspondence of the Association, notify all members four weeks in advance of each annual meeting, at each annual meeting render a report of the duties performed by him since the last annual meeting, and in conjunction with the Executive Committee, shall superintend such publications as the Association shall direct. He shall notify members of their election; also notify members of committees of their appointment and election, and furnish each member of the committees with the names of their associates on said committees. He shall receive and collect all moneys for dues, and from all other sources, giving receipts for the various amounts, keep a correct account thereof, and pay the same to the Treasurer, taking his receipt therefor. He shall give a sufficient bond, subject to the approval of the committee. He shall file a copy of the proceedings of each annual meeting in the office of the State Board of Health, and the Secretary of State, and shall keep at least three copies in his own office.

SEC. 3. The Treasurer shall have charge of all the funds of the Association, for which he shall be personally responsible, pay all orders of the Secretary when countersigned by the President, render a full report of his transactions at each annual meeting, and report the state of the treasury when called upon by the Executive Committee. He shall give a sufficient bond, subject to the approval of the Executive Committee.

SEC. 4. It shall be the duty of the Secretary and the Treasurer to turn over to their successors, without unnecessary delay, all papers and property of the Association committed to their care.

SEC. 5. It shall be the duty of the Executive Committee to aid the local Secretary in making arrangements for the meetings of the Association, to investigate applications for membership, audit all bills against the Association, and attend to all business not otherwise assigned.

SEC. 6. The Committee on Trade Interests shall investigate all complaints regarding trade matters made by members of this Association and take such action thereon as they may deem proper, rendering comprehensive reports at each annual meeting of the Association. The Committee shall have authority to employ a Trade Secretary, fixing his compensation, if any, and the members of the Committee shall be reimbursed for actual traveling and hotel expenses incurred in attending the meetings of the Committee or in pursuing investigations authorized by the Committee.*

*As amended at the 1895 meeting.

ARTICLE VI.**MEETINGS.**

The annual meeting of this Association shall be at such time and place as the Association shall previously determine.

ARTICLE VII.**BY-LAWS.**

This Association may establish for its future government and regulation, such By-laws, not in conflict with the Constitution, as may be deemed proper and desirable.

ARTICLE VIII.**AMENDMENTS.**

Every proposition to alter or amend this Constitution shall be submitted in writing and received at an annual meeting, and may be voted for at the next annual meeting, when, upon receiving the votes of three-fourths of the members present, it shall become a part of this Constitution.

By-Laws.

ARTICLE I.

QUORUM.

Twelve members shall constitute a quorum.

ARTICLE II.

MEMBERSHIP.

The names of persons applying for membership, with their age, residence, present occupation, and length of experience in pharmacy, shall be presented in writing, signed by two members in good standing, to the Executive Committee, and if favorably acted upon by that committee, the candidate shall be considered elected. A vote of all the members of the Executive Committee shall be required for an election.

ARTICLE III.

FEES.

The initiation fee of this Association shall be one dollar, which fee shall accompany the application.

ARTICLE IV.

DUES.

Every member shall pay to the Secretary on or before the first day of January of each year the sum of one dollar. It shall be the duty of the Secretary to draw on all members when two years in arrears, previously sending notice of his intention to draw at a certain date. Any person neglecting to pay dues for three successive years shall forfeit membership. Dues paid by new members before an annual meeting shall apply on the present year. Those becoming members and paying dues after an annual meeting shall receive credit for the following year.

ARTICLE V.

CERTIFICATE OF MEMBERSHIP.

Each member of this Association may, if he desire, upon the payment of one dollar, receive a certificate of membership, which shall be issued by the Secretary, provided said member is not in arrears for dues.

ARTICLE VI.

COMMITTEES.

SECTION 1. The President shall, before the close of each annual meeting, appoint the following committees (of which he shall be an ex-officio member), each to consist of three members: Committee on Pharmacy and Queries; Committee on Legislation; Committee on Adulterations.

SEC. 2. The Committee on Pharmacy and Queries shall report annually respecting scientific progress, discoveries and investigations during the year, and near the close of each annual meeting a proper number of questions of scientific or practical interest, and shall secure the acceptance of as many of such questions of investigation as may be practicable, to be reported upon at the next annual meeting.

SEC. 3. The Committee on Legislation shall keep a record of, and compile for reference, the enactments of the different States regulating the practice of pharmacy and the sale of medicines. They shall report, at each annual meeting of the Association, what legislation on the subject has occurred during the year, and submit such recommendations with regard to legislation in this State as shall appear to them proper.

ARTICLE VII.

SUSPENSIONS—AMENDMENTS.

SECTION 1. These By-Laws shall not be suspended without the consent of two-thirds of the members present.

SEC. 2. Any amendment to these By-Laws must be made in writing and read before the Association at one sitting, and laid over to a subsequent sitting, when, upon receiving the votes of two-thirds of the members present, it shall become a part of these By-Laws.

ARTICLE VIII.

DELEGATES.

Five delegates and five alternates shall be annually elected to attend the meeting of the American Pharmaceutical Association.

ARTICLE IX.

PROCEEDINGS.

The proceeding of the Association, and the roll of officers, committees, and members shall be published annually under the supervision of an editor, who shall be elected annually, and who shall be paid from the funds of the Association, and a copy of the proceedings shall be sent to each member of the Association less than two years in arrears.

ARTICLE X.

EXPULSION OF MEMBERS.

Any member or officer accused of violating the Constitution or By Laws, or other improper conduct, may be expelled or removed from office by a two-thirds vote of all the members at a regular meeting. In every case definite charges must be preferred in writing, to which shall be affixed the names of not less than three members of the Association, and the Secretary shall send the accused person a copy of the charges, and notify him in writing, at least two weeks in advance, of the time when his case will come up for hearing, offering him an opportunity to be heard in his own defense.

ARTICLE XI.

EXHIBITS.

The Association invites manufacturers and others to exhibit at the annual meetings, crude drugs, chemicals, pharmaceutical preparations, and such objects as possess a general scientific or special pharmaceutical interest.

ARTICLE XII.

RULES OF ORDER—ORDER OF BUSINESS.

SECTION 1. The Rules of Order of this Association shall be those in common use in deliberative assemblies, and such special rules as may be adopted by the Association.

SEC. 2. The order of business shall be such as the Executive Committee shall prescribe.

The Pharmacy Law.

AN ACT

To regulate the practice of pharmacy in the State of Michigan.

Act No. 134, Laws of 1885:

SECTION 1. The People of the State of Michigan enact, That the Governor, with the advice and consent of the Senate, shall, within thirty days after the passage of this act, appoint five persons and annually thereafter one person from among such competent pharmacists in the State as have had ten years' practical experience in dispensing physician's prescriptions, who shall constitute the Michigan Board of Pharmacy. The term of office of said five persons shall be so arranged that the term of one shall expire on the thirty-first day of December of each year, and all appointments made thereafter shall be for the term of five years.

SEC. 2. The said board shall, within thirty days after its appointment, meet, and organize, by election of a President and Secretary, from its own members, who shall be elected for the term of one year, and shall perform the duties prescribed by the board. It shall be the duty of the board to examine all applications for registration submitted in proper form; to grant certificates of registration to such persons as may be entitled to the same under the provisions of this act; to investigate complaints and to cause the prosecution of all persons violating its provisions; to report annually to the Governor, and to the Michigan Pharmaceutical Association upon the condition of pharmacy in the State, which said report shall also furnish a record of the proceedings of the said board for the year, and also names of all pharmacists duly registered under this act; the board shall hold meetings for the examination of applicants for registration, and the transaction of such other business as shall pertain to its duties, at least once in four months, said meetings to be held on the first Tuesdays of March, July and November in each year; shall make By-laws for the proper fulfillment of its duties under this act, and shall keep a book of registration in which shall be entered the names and places of business of all persons registered under this act, which book shall also specify such facts as said persons shall claim to justify their registration. The records of said board, or a copy of any part thereof, certified by the Secretary to be a true copy, attested by the seal of the board, shall be accepted as competent evidence in all courts of the State. Three members of said board shall constitute a quorum.

SEC. 3. The Secretary of the board and the treasurer thereof, if such separate office be created, shall receive a salary which shall be fixed by the board; they shall also receive the amount of their traveling and other expenses incurred in the performance of their official

duties. The other members shall receive the sum of three dollars for each day actually engaged in this service, and all legitimate and necessary expenses incurred in the performance of their official duties. Said salaries, per diem, and expenses, shall be paid from the fees received under the provisions of this act. All moneys received in excess of said per diem allowance, and all other expenses above provided for, shall be paid into the State treasury at the end of each year, and so much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof, if, in any year, the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the Board of State Auditors and to the Michigan Pharmaceutical Association, of all moneys received and disbursed by it pursuant to this act.

SEC. 4. Every person who shall within three months after this act takes effect, forward the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, at the time this act takes effect, in the preparation of physicians' prescriptions, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist: Provided, That in case of failure or neglect to register as herein provided, then such person shall, in order to be registered, comply with the requirements provided for registration as a licentiate in pharmacy hereinafter described.

SEC. 5. No person other than a licentiate in pharmacy shall be entitled to registration as a pharmacist, except as provided in Section Four. Licentiate in pharmacy shall be such persons, not less than eighteen years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the board a fee of three dollars: Provided, That in case of a failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within one year. The said board may grant certificates of registration without further examination to the licentiates of such other boards of pharmacy as it may deem proper upon a payment of a fee of two dollars.

SEC. 6. The said board may grant, under such rules and regulations as it may deem proper, at a fee not exceeding one dollar, the certificate of registered assistant to clerks or assistants in pharmacy not less than eighteen years of age, who, at the time this act takes effect, shall be engaged in such service in this State, and have been employed or engaged two years or more in the practice of pharmacy; but such certificate shall not entitle the holder to engage in such business on his own account, or to take charge of, or act as manager of, a pharmacy or drug store.

SEC. 7. Each registered pharmacist, or registered assistant, who desires to continue the practice of his profession shall annually, after the expiration of the first year of his registration, during the time he shall continue in such practice, on such date as the board of pharmacy may determine, pay to the said board a registration fee to be fixed by the board, but which shall not exceed one dollar for a pharmacist, or fifty cents for an assistant, for which he shall receive a re-

newal of said registration. Every person receiving a certificate under this act shall keep the same conspicuously exposed in his place of business. Every registered pharmacist, or assistant, shall, within ten days after changing his place of business or employment, as designated by his certificate, notify the Secretary of the board of his new place of business. If any pharmacist or registered assistant shall fail or neglect to procure his annual registration, or to comply with the other provisions of this section, his right to act as such pharmacist or assistant shall cease at the expiration of ten days from the time notice of such failure to comply with the provisions of this section shall have been mailed to him by the Secretary of said board.

SEC. 8. All or any registration obtained through false representations shall be void, and the board of pharmacy may hear complaints and evidence, and may revoke such certificates as it may deem improperly held.

SEC. 9. Any proprietor of a pharmacy who, not being a registered pharmacist, shall, ninety days after this act takes effect, fail or neglect to place in charge of such pharmacy a registered pharmacist; or any such proprietor who shall by himself, or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines, or poisons, in his store or place of business, except by, or in the presence and under the supervision of, a registered pharmacist, or except by a registered assistant; or any person not being a registered pharmacist who shall take charge of, or act as manager of, such pharmacy or store, or who, not being a registered pharmacist or registered assistant, shall retail, compound, or dispense drugs, medicines, or poisons; or any person violating any other provision of this act to which no other penalty is herein attached, shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than ten nor more than one hundred dollars, and in default of payment thereof, shall be imprisoned not less than ten days nor more than ninety days, or both, such fine and imprisonment in the discretion of the court.

SEC. 10. Nothing in this act shall apply to, or in any manner interfere with, the business of any practicing physician who does not keep open shop for retailing, dispensing, or compounding of medicines and poisons, or prevent him from supplying to his patient such articles as may seem to him proper; nor to the vending of patent or proprietary medicines by any retail dealer who has been in such business three years or more; nor to the selling by any person of drugs, medicines, chemicals, essential oils, and tinctures which are put up in bottles, boxes, or packages, bearing labels securely affixed, which labels shall bear the name of the pharmacist or druggist putting up the same, the dose that may be administered to persons three months, six months, one year, three years, five years, ten years, fifteen years, and twenty-one years of age, and, if a poison, the name or names of the most common antidotes: of copperas, borax, blue vitriol, salt-petre, pepper, sulphur, brimstone, paris green, licorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, glycerine, Glauber Salts, epsom salts, cream tartar, bi-carbonate of soda, sugar of lead, and such acids as are used in coloring and tanning; nor to the selling of paregoric, essence of peppermint, essence of ginger, essence of cinnamon, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits of camphor, number six, sweet spirits of nitre, laudanum, quinine and all other preparations of cinchona

bark, tincture of aconite, and tincture of iron, compound cathartic pills, or quinine pills, nor to the exclusively wholesale business of any dealer; Provided, That every person who shall within three months after this act takes effect forward to the board of pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, in the preparation of physicians' prescriptions, three years next previous to the second day of June, 1885, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist. And provided further, That the said board may grant, at a fee not exceeding one dollar, to such person not less than sixteen years of age who shall pass a satisfactory examination touching his competency before the board of pharmacy, the certificate of registered "assistant," but such certificate shall not entitle the holder to engage in business on his own account or to take charge of, or act as manager of, a pharmacy or drug store.

SEC. 11. No person shall add to or remove from any drug, medicine, chemical, or pharmaceutical preparation, any ingredient or material, for the purpose of adulteration or substitution, which shall deteriorate the quality, commercial value, or medicinal effect, or which shall alter the nature or composition of such drug, medicine, chemical, or pharmaceutical preparation, so that it will not correspond to the recognized tests of identity or purity. Any person who shall thus wilfully adulterate or alter, or cause to be adulterated or altered, or shall sell or offer for sale, any such drugs, medicine, chemical, or pharmaceutical preparation, or any person who shall substitute, or cause to be substituted, one material for another, with the intention to defraud or deceive the purchaser, shall be guilty of a misdemeanor, and be liable to prosecution under this act. If convicted, he shall be liable to all the costs of the action, and for the first offense be liable to a fine of not less than ten dollars nor more than one hundred dollars, and for each subsequent offense a fine of not less than twenty-five dollars nor more than one hundred and fifty dollars. On complaint being entered, the board of pharmacy is hereby empowered to employ an analyst or chemist, whose duty it shall be to examine into the so-called adulteration, substitution or alteration, and report upon the result of his investigation; and if said report shall be deemed to justify such action, the board shall duly cause the prosecution of the offender, as provided in this act.

SEC. 12. The senior pharmacist of every house dispensing and compounding medicines, registered under this act, shall be exempt and free from all jury duty in the courts of this State.

SEC. 13. All acts and parts of acts in conflict with the provisions of this act are hereby repealed.

Approved June 2, 1885.

Michigan State Board of Pharmacy.

GEO. GUNDRUM, IONIA.....Term expires Dec. 31, 1900
 C. A. BUGBEE, TRAVERSE CITY.....Term expires Dec. 31, 1896
 S. E. PARKILL, OWOSSO.....Term expires Dec. 31, 1897
 F. W. R. PERRY, DETROIT.....Term expires Dec. 31, 189
 A. C. SCHUMACHER, ANN ARBOR.....Term expires Dec. 31, 1899

OFFICERS OF THE BOARD.

President, S. E. PARKILL...OWOSSO
 Secretary, F. W. R. PERRY.....DETROIT
 Treasurer, GEO. GUNDRUM.....IONIA

EXAMINATION SESSIONS OF THE BOARD.

Lansing, November 4-5, 1896.
 Detroit, January 6-7, 1897.
 Grand Rapids, March 2-3, 1897.
 Detroit (Star Island), June —, 1897.
 Upper Peninsula, August —, 1897.

Direct all correspondence regarding Examinations, Violations of the Pharmacy Law, etc., to F. W. R. PERRY, Secretary State Board of Pharmacy, Detroit, Mich.

LIST OF MEMBERS.

Adams, H. M., Port Huron.....	1888
Akey, J. V., cor. Central and Vernon Aves., So., Los Angeles, Cal.....	1885
Allen, Chalmers P., West Bay City.....	1891
Almendinger, Charles G., Williams, Davis, Brooks & Co., Detroit.....	1894
Amberg, Isaac, Battle Creek.....	1886
Anderson, C. N., 95 Woodward Ave., Detroit.....	1888
Anderson, Ellery, Midland.....	1884
Atchison, F. E., Gladwin.....	1888
Atkinson Jr., Henry, Harbor Springs.....	1894
Babbington, John, Corunna.....	1884
Bachman, M. H., Stanton.....	1883
Bailey, Dr. John R., Mackinac Island.....	1890
Bailey, M. G., Mackinac Island.....	1888
Baker, H. G., Nelson, Baker & Co.....	1888
Bannister, John L., 201 S. Washington St., Saginaw, E. S.....	1890
Barber, M. A., Petoskey.....	1887
Barie, H. L., 535 Macomb St., Detroit.....	1887
Barnard, Wm. Dwight, 427 River St., Manistee.....	1891
Bassett, A., 95 Woodward Ave., Detroit.....	1884
Bassett, J. A., 201 N. Washington St., Ypsilanti.....	1885
Beach, L. F., Bay City.....	1884
Beacham, C. B., Romeo.....	1884
Bell, John, Lexington.....	1888
Bertram, J. P., 13 Main St., Westphalia.....	1883
Bigelow, W. H., Corunna.....	1884
Blair, C. A., Morenci.....	1884
Blakeslee, L. G., Detroit.....	1885
Bliss, Lyman W., Saginaw.....	1890
Boden, Edwin T., 319 Washington St., West Bay City.....	1890
Bogart, Frank E., 903 Trumbull St., Detroit.....	1890
Borradaile, Fred'k H., Detroit.....	1892
Bostick, Charles H., Manton.....	1892
Botsford, E. S., Dorr.....	1886
Bower, J. E., Crystal Falls.....	1887
Bower Jr., Reuben T., Petoskey.....	1891
Boynton, Oliver C., Port Huron.....	1890

Brackett, F. E., Cheboygan.....	1887
Bradshaw, John P. H., Davison.....	1894
Breitenbach, A. P., Champlain and Sheridan Sts., Detroit.....	1889
Bristol, F. E., Lapeer.....	1884
Bristol, N. D., Lapeer.....	1884
Brooks, Alanson S., Williams, Davis, Brooks & Co., Detroit.....	1890
Bross, C. M., Jerome.....	1889
Brown, D. D., 108 S. Burdick St., Kalamazoo.....	1885
Brown, H. J., Ann Arbor.....	1883
Brundage, F., Muskegon.....	1886
Buchanan, B. F., Harrisville.....	1883
Bugbee, C. A., Traverse City.....	1885
Burdick, H. H., 611 E. Midland St., West Bay City.....	1884
Burwell, R. G., 2339 Gratiot Ave., Port Huron.....	1884
Cadlip, Samuel, Iron Mountain.....	1896
Cagwin, Joel E., 11 S. Story St., Boone, Iowa.....	1893
Caldwell, J. W., 242 Grand River Ave., Detroit.....	1888
Calkins, E. E., Ann Arbor.....	1884
Carney, M. S., Decatur.....	1885
Chamberlin, G. T., Hartford.....	1883
Chandler, C. A., Cambria.....	1884
Church, H. M., Holly.....	1883
Church, William D., Parke, Davis & Co., Detroit.....	1889
Clark, A. B., Gobleville.....	1889
Clark, A. G., White Cloud.....	1883
Clark, H. C., Detroit.....	1888
Clark, J. K., Blissfield.....	1884
Clark, S. B., Flint.....	1890
Claxton, W. C., Calgary Alberta (Box 112), N. W. T., Canada.....	1885
Coe, Thomas D., Romeo.....	1884
Cohoe, Adolph, Capac.....	1890
Cole, V. W., Petoskey.....	1896
Coleman, Sheldon, 1017 Douglas Ave., Kalamazoo.....	1893
Coleman, H. G., Kalamazoo.....	1884
Colwell, Dr. C. B., Jackson.....	1886
Conrad, J. F., Otsego.....	1896
Cook, Charles E., 912 VanBuren St., Bay City.....	1884
Cooper, I. S., Cheboygan.....	1885
Cornell, David A., Copemish.....	1892
Cosford, Dr. J. W., Mancelona.....	1887
Crawford, J. B., Ithaca.....	1885
Cress, Edward A., Minden City.....	1890
Crispe, John, Plainwell.....	1886
Crouter, G. W., Charlevoix.....	1883
Crowley, J. J., 421 Michigan Ave., Detroit.....	1884
Culver, Dr. R. W., South Haven.....	1886

Cummer, R. J., 176 Euclid Ave., Cleveland, O.....	1884
Curran, E. S., St. Joseph.....	1883
Currie, A. A., St. Clair.....	1885
Curtis, C. A., Petoskey.....	1885
Curtis, C. A., Petoskey.....	1893
Cutler, W. R., Ionia.....	1883
Darling, G. S., Tawas City.....	1888
Davis, George S., Parke, Davis & Co., Detroit.....	1888
Davis, James E., Williams, Davis, Brooks & Co., Detroit.....	1884
Dayton, A. J., 74 Wealthy Ave., Grand Rapids.....	1887
Dean, H. M., Niles.....	1887
Dendel, W. H., Hopkins Station.....	1892
Dennis, G. C., Rochester.....	1888
DePuy, C. E., Stockbridge.....	1888
Dewey, C. C., Napoleon.....	1885
Dewitt, P. A., Spring Lake.....	1888
Dillon, James E., East Tawas.....	1887
Dodd, I. Leroy H., Buchanan.....	1884
Dorman, Charles, Elkton.....	1890
Dorrance, A. A., Coldwater.....	1883
Dunlap, Thomas, South Lyon.....	1884
Dupont, William, 182 Michigan Ave., Detroit.....	1883
Dorr, F. W., 142 Twelfth St., Detroit.....	1895
Dunbar, W. L., Parma.....	1895
Eberbach, O., Ann Arbor.....	1883
Elfbrandt, Henry, Negaunee.....	1890
Fairchild, H. B., Grand Rapids.....	1886
Farrand Jr., J. S., Detroit.....	1888
Fanckboner, Orin A., 429 E. Bridge St., Grand Rapids.....	1890
Fay, O. J., Carleton.....	1888
Fenton, George L., Kingsley.....	1885
Fildew, A. S., 21 Clinton Ave., St. Johns.....	1884
Fincher, F. W., Pentwater.....	1883
Fisk, C. A. E., Petoskey.....	1885
Foote, C. E., Jackson.....	1886
Fordham, M., Elmira.....	1885
Fordham, W. W., Elmira.....	1884
Forsyth, Edward L., Kalamazoo.....	1891
French, C. S., Hillsdale.....	1888
Fritz, T. H., Cass City.....	1885
Fuqua, C. B., Paris.....	1891
Furniss, John C., Nashville.....	1891
Gardner, Grant G., North Star.....	1893
Gates, Dr. T. O., East Tawas.....	1884
Gerow, J. E., Ovid.....	1883
Gidday, Fred'k K., Farrand, Williams & Clark, Detroit.....	1892

Gill, W. J., Beacon	1884
Gladwin, H. L., Merrill	1888
Glazier, F. P., Chelsea	1885
Gleason, E. G., Richmond	1884
Goodrich, L. A., Hillsdale	1884
Goodwin, A. A., Indianapolis, Ind.	1896
Graham, A. B., 411 Woodward Ave., Detroit	1893
Grandy, Francis, Fairfield	1885
Grossman, William, 1218 Court St., Saginaw, W. S.	1890
Grunow, O. H., 182 Gratiot Ave., Detroit	1884
Gundrum, George, Ionia	1883
Hackett, P. E., Wolverine	1886
Haeussler, G. J., Manchester	1885
Haines, Edwin J., Duroy & Haines, Sandusky, O.	1890
Hale, H. G., Nashville	1883
Hall, W. A., Greenville	1884
Hamilton, Jerome D., M. D., Paw Paw	1892
Hart, Austin P., Mulliken	1891
Harwood, G. M., Petoskey	1884
Harwood, Henry, Ishpeming	1885
Hayes, Newland, 313 Forest Ave. W., Detroit	1894
Hays, J. A. (Ph. G.), 147 S. Eighteenth St., Pittsburgh, Pa.	
Heffernan, Thomas, Baldwin	1895
Hessler, Wm. (M. D.) 291 Jefferson Ave., Detroit	1883
Hessler, W. F., Rockford	1895
Hicks, Charles V., Oscoda	1891
Hicks, W. H., Big Rapids	1883
Hinchman, C. C., 76 Jefferson Ave., Detroit	1885
Hinchman, J. M., 76 Jefferson Ave., Detroit	1888
Hodges, F. A., Parma	1888
Hopkins, F. S., Benton Harbor	1888
Hopkins, I. F., Muskegon	1884
Hopper, Arthur J., Alpena	1896
Hubert, John H., 208 12th St., Detroit	1890
Hueston, G. C., Northville, Box 17	1835
Hunt, A. O., St. Johns	1885
Hunt, Dewitt H., St. Johns	1888
Hurd, A. E., Davison Station	1884
Hutchins, Lee M., Detroit	1890
Hutchinson, Barzilla S., Lyons	1892
Hutton, R. J., 425 Antoine St., Detroit	1885
Hyde, A. O., Marshall	1883
Inglis, Frank, Detroit	1883
Ingram, F. F., Detroit	1891
Jack, G. T., Detroit	1890
Jones, H. Otis, New Buffalo	1895

Johnson, J. G., Traverse City	1884
Johnson, O. C., Ann Arbor	1884
Judson, F. E. Brighton	1883
Kelley, F. R., Au Sable	1884
Kemink, Theo., Valley City Drug Co., Grand Rapids	1884
Kennedy, T. B., Commerce	188
Kenyon, W. W., (re-enter), Howell	1884
Kephart, H. Berrien Springs	1883
Kingsley, John, M. D., Manistee	1889
Kirchner, J. S. 609 Congress St., E., Detroit	1895
Kirkwood, P. B., Negaunee	1895
Knill, Jr., H. C. Port Huron	1888
Koon, C. S., Muskegon	1885
Lacroix, Jos. J., Bay City	1890
LaRue, C. M., West Bay City	1885
Law, Dr. W. J., Baraga	1889
Leland, N. P., Durand	1886
Lentz, Theo., Campbell Ave. and River street, Detroit	1885
Lever, Henry, M. D., Freemont	1884
Leyerer, Geo. S., Bay City	1890
Lipsinski, Julius, 156 Gratiot, Detroit	1895
Little, A. F., Aarwood, Kalkaska Co.	1885
Luce, Jr., W. O., Caro	1885
Lyman, A. H., Manistee	1883
Lyman, Dr. M. R., Gagetown	1891
Lyon, L. W. 722 St. Aubin Ave., Detroit	1895
McCullough, Edward P., care Fred D. Stevens, Detroit	1890
McDonald, D., 177 E. Main St., Kalamazoo	1884
McDonald, D. T., Red Jacket	1883
McDonald, Geo., Kalamazoo	1885
McEvoy, J. E., Manistee	1883
McFarland, A., 693 Michigan Ave., Detroit	1883
McGee, Thos. H., Farmington	1891
McKenna, J. D., Shepherd	1884
McKevitt, H. D., Ishpeming	1895
McKibbin, R. S. 322 Fort St., W., Detroit	1888
McMullen, G. H., Ionia	1893
MacKimmie, G. D., 29 Jefferson Ave., Detroit	1888
Main, James I., Tekonsha, Calhoun County	1895
Mann, Albert, Ann Arbor	1883
Mann, Chas. F., 845 3d Ave, Detroit	1888
Martin, A. F. Imlay City	1884
Martin, Henry, 105 Main St., Jackson	1884
Martin, Susie A., Holland	1885
Mason, C. A., Flint	1885
Mason, J. F., Warren	1888

Matthews, Geo. M., 6th and Broadway Sts., Grand Rapids...	1891
Maxson, M. M., Hudson	1885
Mayer, F. W., Sebewaing	1884
Meseroll, D. C., 154 Main St., Jackson	1884
Mesick, H. J., Plainwell	1886
Miller, Archie T., Swartz Creek	1890
Miller, H. J., Vassar	1885
Millikin, T. J., St. Clair	1884
Millsbaugh, Martin Benedict, 98 N. Union St., Grand Rapids ..	1890
Moore, John, Ann Arbor	1884
Moore, Lon. G., cor. Michigan and Gratiot Aves., Saginaw, W. S.	1890
Morris, H. M., 919 Grand River Ave., Detroit	1888
Morrish, N. D., Sault Ste. Marie	1895
Morrison, A. W., Constantine	1885
Muir, J. D., Grand Rapids	1886
Maurer, Carl L., Cadillac	1895
Nasmyth, P. F., cor. Baker and 18th Sts., Detroit	1888
Nelson, E. H., Nelson, Baker & Co.	1884
Newell, C. P., Flushing	1884
Niver, Mrs. W. H., Chesaning	1888
Nugent, W. A., Bay Mills	1891
Nutt, E. C., Cheboygan	1890
Orr, J. J., Tecumseh	1884
Osborne, G. A., Luther	1887
Palmer, Dr. Henry, St. Johns	1889
Parker, A. S., 747 Woodward Ave., Detroit	1883
Parker, O. J., Howell	1889
Parkill, S. E., Owosso	1883
Passage, J. H., Greenville	1886
Pasternacki, Chas. L., 779 Hastings St., Detroit	1895
Patenaude, A., Norway	1887
Patterson, B. M., 238 Randolph St., Detroit	1885
Pauly, L., St. Ignace	1887
Peck, J. E., Grand Rapids	1885
Peckham, H. C., Freepport	1885
Pegg, H. D., Morenci	1884
Perham, J. T., Kent City	1888
Perry, D. B., West Bay City	1883
Perry, F. W. R., 709 Woodward Ave., Detroit	1883
Pettitt, Charles E., Sand Beach	1890
Phelps, L. A., Saugatuck	1888
Phillips, E. F., Armada	1883
Phillips, F. S., Ogden	1884
Phillips, H. S., Carson City	1888
Phillips, W. R., Battle Creek	1883
Pierson, L. R., 511 Walnut St., Des Moines, Ia.	1888

Pike, N., Morley	1888
Potter, Frank P., Allegan	1892
Powell, A. H., Gladstone	1890
Power, J. O., Addison	1884
Prall, D. E., East Saginaw	1883
Pratt, G. O., 723 Antoine St., Detroit	1884
Prescott, A. B., Ann Arbor	1883
Price, Fred R., Sault Ste. Marie	1895
Price, George A., Spring Lake	1892
Prosser, H. H., Flushing	1895
Purvis, G. S., 983 Jefferson Ave., Detroit	1885
Raizon, James (M. D.), 406 N. Commercial St., Trinidad, Col.	1888
Ray, G. C., West Bay City	1885
Raynale, Frank B., Lansing	1891
Reidy, Mike, Corunna	1884
Remus, William, Grand Rapids	1892
Reynolds, Linton E., 503 Michigan Ave, Lansing	1890
Rheinfrank, J. P., Detroit	1894
Richmond, Dr. T. W., Bear Lake	1883
Richter, Louis J., Saginaw, W. S.	1895
Riggs, Miles E., Cheboygan	1891
Ripley, L. G., Montague	1884
Roberts, D. O., Kalamazoo	1887
Rodenbaugh, H. W., Breedsville	1887
Rodenbaugh, J. N., Mancelona	1886
Rodenbaugh, O. S., Mancelona	1885
Roeser, Otto W., Saginaw, W. S.	1890
Rogers, E. J., Port Huron	1884
Rogers, A., Ravenna	1888
Roscoe, Fred, 916 Water St., Bay City	1894
Rothacher, Jacob W., 720 Gratiot Ave., Detroit	1892
Roussin, V., Ludington	1884
Rudolphi, A. E., Dowagiac	1886
Runner, J. W., Shelby	1886
Russell, Dorian M., 84 Canal St., Grand Rapids	1892
Russell, Ellsworth E., Jackson	1890
Sackett, S. M., Monroe	1883
Safford, O. P., Flint	1883
Sawyer, R. J., Menominee	1883
Schlotterbeck, Julius O., Ann Arbor	1890
Schmidt, Walter Karl, 84 Canal St., Grand Rapids	1892
Schott, A. A., East Saginaw	1888
Schrouder, Benj., 209 E. Bridge St., Grand Rapids	1892
Schultz, L. S., St. Joseph	1885
Schumacher, A. C., Ann Arbor	1887
Scott, Dr. H. J., Seney	1890

Seeley, C. A., 218 S. Washington Ave., Lansing.....	1888
Selleck, Robert W., Flint.....	1890
Shaffer, John M., Gladwin.....	1889
Sherrard, Charles C. (Ph. C.), 121 Twentieth St., Detroit.....	1892
Sherwood, C. L., Dowagiac.....	1884
Shook, D. L., Coral.....	1884
Siebert, G. F., Iron Mountain.....	1883
Sigler, F. A., Pinckney.....	1885
Simoneau, Leander, Saginaw, E. S.	1890
Simoneau, Richard T., Saginaw, E. S.....	1890
Simpson, Floyd D., Flint.....	1891
Sloan, E. E., Flint.....	1885
Smith, Charles E., Pontiac (Box 467).....	1891
Smith, Fletcher, Saginaw.....	1883
Smith, Frank W., Hillsdale.....	1891
Smith, Samuel R., 225 S. Division St., Grand Rapids.....	1892
Spayde, W. H., Bloomingdale.....	1886
Speckhard, Adolphus O., Watersmeet.....	1891
Spenser, J. L., Linden.....	1883
Spenser, M. Ella, Linden.....	1894
Sprague, W. G., Flushing.....	1883
Stafford, Joseph, Newberry.....	1890
Stanton, H. N., Sidnaw.....	1885
Stearns, Fred'k K., Detroit.....	1891
Steinkohl, Fred'k, Manchester.....	1889
Stevens, A. B., Ann Arbor.....	1883
Stevens, F. D., 133 Woodward Ave., Detroit.....	1883
Stoeckly, Louis, Iron Mountain.....	1891
Stone, C. G., Detroit.....	1884
Stover, H. E., Kalkaska.....	1886
Stiner, James W., Unionville.....	1890
Stringer, G. W., 898 Michigan Ave., Detroit.....	1884
Summers, J. W. F., Gould City.....	1892
Swaby, G. A., Bay City.....	1885
Sweet, B. F., Carson City.....	1885
Sweetser, F. E., Port Huron.....	1888
Swift, George, 101 Griswold St., Detroit.....	1883
Taylor, Mrs. C. W., Loomis.....	1885
Taylor, H. S., 54 Selden Ave., Detroit.....	1889
Tepoorten, Frank A., Bay City.....	1890
Thompson, Frank A., Parke, Davis & Co.....	1889
Thum, Hugo, Grand Rapids.....	1884
Tilton, B. E., Bay City.....	1885
Todd, A. M., Kalamazoo.....	1887
Tomlinson, A. E., Saginaw, W. S.	1890
Tomlinson, W. A., Au Sable.....	1884

Treat, A. B., Adrian.....	1884
Tubbs, C. C., Chesaning.....	1883
Tupper, F. L., Salzburg.....	1885
Turner, Dr. R., Flat Rock.....	1886
Tuttle, W. A., Holly.....	1883
Upton, Eugene S., Durand.....	1896
VanBochove, R., Grand Rapids.....	1886
Vandecar, J. H., North Branch.....	1883
VanEmster, F. H. J., Bay City.....	1885
VanMarter, Ezra J., 428 E. Main St., Jackson.....	1884
VanOstrand, Edward T., Allegan.....	1893
VanSickle, Clarence E., St. Johns.....	1892
VanVranken, G. D., Cadillac.....	1886
Varnum, E. C., Jonesville.....	1884
Varnum, G. C., Jonesville.....	1884
Vaughan, B. D., 219 Superior St., Albion.....	1884
Vaughan, William H., Alpena.....	1890
Vedder, E. H., cor. Midland and Walnut Sts., West Bay City..	1885
Veitch, Arthur, Mayville.....	1890
Vernor, James, 33 Woodward Ave., Detroit.....	1884
Waite, S. E., Traverse City.....	1884
Walker, A. L., 411 Woodward Ave., Detroit.....	1888
Walker, J. David, East Saginaw.....	1891
Walker, W. K., Lansing.....	1883
Walsh, Heber, 63 E. Eighth St., Holland.....	1885
Ward, G. J., St. Clair.....	1884
Warne, F. C., East Jordan.....	1886
Warren, W. M., with Parke, Davis & Co., Detroit.....	1888
Watson, J. B., Coopersville.....	1884
Watz, H. G., Saginaw.....	1884
Webb, B. S., Alma.....	1886
Webb, E. T., Jackson.....	1885
Webber, A. H., Cadillac.....	1884
Weeks, James E., Battle Creek.....	1889
Weiss, J., Monroe.....	1888
Wellman, Bert E., Armada.....	1894
Wells, C. A., Yale.....	1886
Wendover, W. V., 1473 Woodward Ave., Detroit.....	1895
Westervelt, Hotel Vendome, Grand Rapids.....	1896
Wetzel, H. A., 902 Jefferson Ave., Detroit.....	1888
Whitmarsh, S. P., Palmyra.....	1893
Whipple, G. N., 222 Orleans St., Detroit.....	1885
Wilber, C. H., St. Ignace.....	1887
Wilders, A. J., Ortonville.....	1885
Wilkins, F. C., Union City.....	1885
Williams, J. P., Climax.....	1888

Williams, R. P., care of Farrand, Williams & Clark, Detroit.....	1888
Williams, W. C., care of Williams, Davis, Brooks & Co., Detroit..	1884
Williamson, John, Detroit.....	1884
Winegar, Willard S., Lowell.....	1892
Witherspoon, G. A., Chatham, Ont.....	1885
Witherspoon, P. E., Harrison.....	1885
Wolfinger, C. E., Hopkins Station.....	1884
Wood, William A., Six Lakes.....	1888
Wood, Will H., Sheridan.....	1887
Woods, C. H., 524 Grand River Ave., Detroit.....	1888
Wright, Charles, W. Larned St., Detroit.....	1883
Wright, C. A., Tecumseh.....	1884
Wurzburg, F. J., Grand Rapids.....	1884
Yeomans, E. T., Ionia.....	1883

HONORARY MEMBERS.

Duffield, S. P., Ph., M. D., Detroit.....	Elected	1887
Englehard, G. P., Chicago, Ill.....	"	1893
Lyons, Albert B., Honolulu, Hawaii.....	"	1891
Stowell, Mrs. L. R., M. D., Washington, D. C.....	"	1887
Vaughan, V. C., Ph. D., M. D., Ann Arbor.....	"	1887
Wrampelmeier, T. J., Ph. C., San Diego, Cal.....	"	1887
Wells, Frank, Lansing.....	"	1890
Hoffmann, Fr., Ph. D., New York City.....	"	1893
Jesson, Jacob, Anaheim, Cal.....	"	1894

ASSOCIATE MEMBERS.

Dierdorf, C. W., Grand Rapids (G. J. Johnson Cigar Co.).....	1896
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OBITUARY.

G. S. FRENZEL, MAYVILLE, MICH., died August, 1894. Had been a member of the M. S. P. A. since September 17, 1889.

MILTON B. STANTON, SHERIDAN, MICH., died February 11, 1896. Had been a member of the M. S. P. A. since September 12, 1889.



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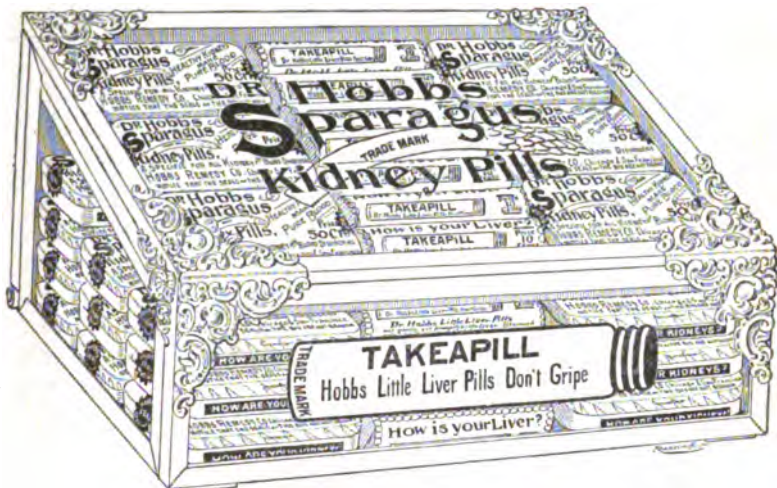
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..... 189
Name of your town and date on this line.

M.....
Name of your jobber on this line.

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Your jobber's address on this line.

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Potass Chlorate.....	10¼ lb.	11 lb.	12 lb.
Potass. Chlorate, powdered.....	11¼ lb.	12 lb.	13 lb.
Lycopodium, (keg 46 lb).....	48 lb.	50 lb.	51 lb.
	25 lb.	10 lb.	5 lb.
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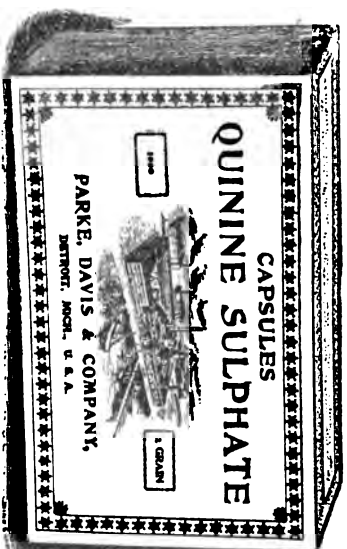
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PRICE, \$3.75 per Dozen.

Your Customers Are now compelled
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Wholesale Price of Assortment, list,	-	-	\$25 26
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The wrapping paper has buyer's address and specialties neatly printed thereon. The paper will be sent to your jobber for shipment with

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Proceedings

of the

**Fifteenth Annual
Meeting**

of



**he Michigan State
Pharmaceutical
Association**

1897.

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Proceedings of the Fifteenth
Annual Meeting

OF THE

MICHIGAN STATE

Pharmaceutical Association,

HELD AT GRAND LEDGE,
AUGUST 3-4-5, 1897.

ALSO

CONSTITUTION AND BY-LAWS, AND
ROLL OF MEMBERSHIP

Michigan State Board of Pharmacy
and Pharmacy Law.

CHARLES F. MANN, SECRETARY,
845 THIRD AVE.
DETROIT, MICHIGAN.

NOTICES.

MEMBERSHIP.

Blank applications for membership will be furnished by the Secretary upon request.

Every member is particularly urged to secure as many new members as possible.

Our membership should embrace every Pharmacist in the State.

PROCEEDINGS.

The Association is short copies of the *first, second, third* and *fourth* meetings. Any members who can furnish these will please communicate with the Secretary.

**Next Place of Meeting, PORT HURON,
August 2, 3, 4, 1898.**

ED. J. RODGERS,
LOCAL SECRETARY.

OFFICERS 1897-98.

PRESIDENT.

Arthur H. Webber, Cadillac.

VICE-PRESIDENTS.

John J. Sourwine, Escanaba. W. R. Cutler, Ionia.
C. N. Anderson, Detroit.

SECRETARY.

Charles F. Mann, 845 3rd Ave., Detroit.

TREASURER.

J. D. Muir, Grand Rapids.

LOCAL SECRETARY.

Ed. J. Rodgers, Port Huron.

STANDING COMMITTEES 1897-98.

EXECUTIVE COMMITTEE.

Prof. A. B. Stevens, Ann Arbor. H. G. Coleman, Kalamazoo.
E. E. Calkins, Ann Arbor. A. B. Schumacker, Grand Ledge.
W. S. Winegar, Lowell.

TRADE INTERESTS COMMITTEE.

For Three Years :

E. F. Phillips, Armada. A. C. Schumacher, Ann Arbor.

For Two Years :

C. N. Anderson, Detroit. J. K. Clark, Blissfield.
O. Eberbach, Ann Arbor.

For One Year :

F. J. Todd, Detroit. S. E. Parkill, Owosso.

PHARMACY AND QUERIES COMMITTEE.

Prof. A. B. Prescott, Ann Arbor. A. S. Parker, Detroit.
D. M. Russell, Grand Rapids.

LEGISLATIVE COMMITTEE.

H. J. Brown, Ann Arbor. J. S. Bennett, Lansing,
Geo. McDonald, Kalamazoo.

ADULTERATION COMMITTEE.

Prof. A. B. Stevens, Ann Arbor. C. C. Sherrard, Detroit.
J. O. Schlotterbeck, Ann Arbor.

SPECIAL COMMITTEE ON REVISION OF PHARMACY LAW.

F. W. R. Perry, Detroit. O. Eberbach, Ann Arbor.
E. F. Phillips, Armada.

SPECIAL COMMITTEE ON MUTUAL MANUFACTURING.

C. N. Anderson, Detroit. F. A. Thompson, Detroit.
Dr. G. J. Ward, St. Clair.

DELEGATES.

AMERICAN PHARMACEUTICAL ASSOCIATION.

Prof. A. B. Prescott, Ann Arbor. E. F. Phillips, Armada
J. J. Main, Tekonsha. D. S. Hallock, Detroit.
E. T. Webb, Jackson.

NATIONAL WHOLESALE DRUGGISTS' ASSOCIATION.

J. J. Sourwine, Escanaba. C. N. Anderson, Detroit.

OHIO PHARMACEUTICAL ASSOCIATION.

C. N. Anderson, Detroit. Alternate, W. G. Sprague, Flushing.

INDIANA PHARMACEUTICAL ASSOCIATION.

F. E. Westervelt, Grand Rapids. Alternate, M. Beldy, Corunna.

ILLINOIS PHARMACEUTICAL ASSOCIATION.

I. E. Reynolds, St. Joseph. Alternate, G. W. Stringer, Detroit.

PROCEEDINGS
OF THE
FIFTEENTH ANNUAL MEETING
OF THE
Michigan State Pharmaceutical Association

HELD AT
GRAND LEDGE, AUGUST 3, 4, 5, 1897.

FIRST SESSION.

The Association held its first session in the Grand Ledge Club Rooms, Tuesday afternoon, beginning at 2 o'clock. It was called to order by President E. F. Phillips, who spoke as follows:

"Members of the Michigan State Pharmaceutical Association, Ladies and Gentlemen:—The time to call to order the first session of the fifteenth annual meeting of our Association has arrived, and before proceeding to do any business, I wish to congratulate you on the large attendance. It is evidence that our Association is still very much alive. Those of you who were at Mackinac Island last year will remember at the first meeting the fish and bicycles of the place would have to be called upon to help make a quorum, many of the members arriving one day too late, but to-day it is different; at the first session we have a very good attendance.

"Through a misunderstanding, the Mayor of this village, who was to make an address of welcome, is not in the city to-day, he understanding the convention was not to begin until to-morrow. In his absence, Mr. A. B. Schumacker, one of the leading druggists and business men of Grand Ledge, will deliver this address, and I take great pleasure in introducing our mutual friend and local Secretary, Mr. A. B. Schumacker." (Applause.)

Mr. Schumacker addressed the meeting as follows:

"Mr. President, members of the Michigan State Pharmaceutical Association, Ladies and Gentlemen:—In behalf of the Mayor and citizens of Grand Ledge I take pleasure in most heartily welcoming you as citizens of this great State of Michigan to our beautiful and enterprising village. We are glad to see so many

of you here and hope your stay will be a most pleasant one. We hope your meeting will be of profit to you both in a business sense and a social way. The keys of the city are in your hands; we want you to make the best of everything; we want you to ask anything you wish, and I can assure you that the Grand Ledge citizens are proud of this occasion and will spare no pains to show that we are happy to have you convene with us and assist you in making the meeting a happy memory." (Applause.)

President—"Mr. H. J. Brown, of Ann Arbor, is in the room, and I take pleasure in calling upon him to answer the kind words and good wishes of Mr. Schumacker and the citizens of Grand Ledge to which we have just had the pleasure of listening."

Mr. Brown:

"Mr. President and Members of the Association:—I do not think there is much to be said in answer to such a frank and friendly speech as Mr. Schumacker has just made in behalf of the Mayor and citizens of this delightful place. If the people of this city are glad we are here, I am sure we are glad to be here. Most of the members of the Association who are here to-day have never been in this particular part of the State before. I have but just arrived, and am both surprised and enchanted with the picturesque scenery and life here. I have not seen but a little of Grand Ledge, but from what others say I judge it is a beautiful place, and am sure the balance of what I expect to see here will bear me out in saying truthfully the place is grand and the people are alive, good natured and enterprising. I have but one complaint to make regarding the people of Grand Ledge; it is personal. When I was in the barber shop this morning for the purpose of being shaved, and after the tonsorial artist had finished his task he calmly and dryly remarked, 'What do you wish on your hair?' (Mr. Brown has a slightly bald pate.) (Applause.) I am glad to have the pleasure of meeting Mr. Schumacker and the citizens here, and in behalf of the Association, I beg to thank him and the other druggists and business men of Grand Ledge in advance for the honors and hospitality shown to us. We have been courteously and kindly received, and I am sure I express the feeling of every member of the Association in saying that we feel under obligations for the courtesies." (Applause.)

President—"Mr. Webber is in the room. He will please take the chair."

Chairman—"Gentlemen, the next in order is the President's address; we will now have the pleasure of listening to him."

PRESIDENT'S ADDRESS.

"Fellow Members of The Michigan State Pharmaceutical Association:—For the second time in the history of this Association we meet in this vicinity. Those of you who were with us at the last annual meeting will remember that the chief interest in that meeting seemed to center round the spot where it was held. That

historic old ground which has been dubbed by our friend Hayes, 'The finest spot on God's green earth.' But I find, and the experience is undoubtedly the same with you all, that the more I travel the more of those 'fairest' spots I find. And now we have come to another of the many evidences of the handiwork of the Great Landscape Gardener of the Universe, and what a surprise to many of us. Many who little realized that a place so unique, so restful, so picturesque, lay so near. For the second time I repeat, we have come to this vicinity. What changes have taken place in the Association in fourteen years! How many of the pillars which then supported the structure have been removed; some by the hands of death; some to become supports of other organizations in other lines of business.

"As I look over the faces now before me, I find comparatively few who were with us in Lansing that November in '83. But this is a world of changes, and we can but note them as they pass by. Among them I cannot fail to note the sudden call of our ex-Vice-President, S. P. Whitmarsh, of Palmyra, who on June 21st was stricken down while about his daily duties. A recent Pharmaceutical journal says, in commenting on his life, that his aim was to be an ideal country druggist. At least two of our staunchest supporters, corner stones I might say, have left the ranks of retail pharmacy to join other ranks in more remunerative callings. We shall always revere their names for the good work they have done and wish them abundant success in the other fields of labor.

"In the year that has passed there have been a number of storms at the capitol which bid fair to work havoc in pharmacy. Among them, and the most serious were probably House bill No. 66, which allowed physicians to register without examination, and the Coleman bill, which required druggists to make a complete inventory of all liquors on hand each month, and imposed a heavy fine if inventory and record of sales during the month did not agree. It also prohibited the sale of all liquors in original bottles. Owing to the faithful work of the Legislative Committee, members of the Board of Pharmacy, your Secretary, and some members outside of office, the skies are once more clear, only to gather moisture in the two years to come, which will be precipitated upon us again by coming in contact with a current from some iceberg of a legislator at the next session. The report of the Legislative Committee will show more fully the extent of these disturbances and also recommend some needed legislation to be discussed.

"The Secretary has circulated the correspondence relative to tax-free alcohol, which was sent from Washington, and the various letters sent to congressmen are probably familiar to you all and will undoubtedly be mentioned in his report.

"It is customary in addresses of this nature for the President to review from year to year the status of pharmacy. What, with the dispensing of medicines by physicians, the cutting of prices by department stores (of course they are the only ones who cut), the cry of substitution by the manufacturers, and the sale of goods to the arch cutter by jobbers, and the slang expression, "Where are we at?" echoes about the only description of the situation to be given.

"It is much easier to mention these various phases of our situation than it is to suggest successful treatment of any one of them. The cutter and the department store seem to have come to stay, and the matter of fighting and legislating them away seems about as fruitless a task as that of attempting to lift oneself by ones boot straps. Still there are those who are sanguine in the belief that these efforts will prevail.

"To the younger ones in our Association I would point, as a relief from the burdens which have been placed upon the back of the retail pharmacist by these existing conditions to 'Higher Education.' Bacteriology, physiological chemistry and microscopy are fields wherein the pharmacist may explore with the prospect of a greater amount of future pleasure and profit in store for him than he at present knows. In the modern practice of medicine the diagnosis of disease has ceased to be the 'feeling of the pulse' and 'looking at the tongue.' The physician must know in some instances all about the urine (sp. gravity, reaction, sugar, blood, pus, urea, etc., etc.); contents of every cavity taken by aspirator needs examining as minutely; in the numerous infectious and contagious diseases examinations for bacilli must needs be undertaken; the microscope is again called into play in the examination of tumors, etc. The skilled physician should be and is abundantly able to carry on all these examinations, but many of them need hours and days of careful study and watchfulness which the busy practitioner is unable to give to them. To whom would the doctor more gladly turn than to the pharmacist, who, by careful training and well equipped laboratories, would be competent to work out these painstaking details? Then, for the public, there are water analysis, food analysis, milk analysis, etc. I do not think I am too visionary when I predict that the twentieth-century pharmacy will have its microscopical, bacteriological and chemical laboratories in connection (In fact, we have at least one instance on a large scale of such a pharmacy now), and I also predict that 'Higher Education' is to be the connecting link that reunites pharmacy and medicine on the old plan of reciprocity.

"For the druggist of to-day, the 'merchant druggist,' as he is more often called, I would advocate as many side lines as space and capital will permit. I would also advocate the practice of substitution with a big 'S.' Not the mean, contemptible, yes, criminal substitution, which when Listerine, for instance, is prescribed or called for, dispenses a 'home grown' product of the laboratory; but in the Listerine case, and this would apply to a score or more of secret remedies or doctors' patents, I should advocate putting up a preparation similar to the ones which every manufacturing concern in the country catalogues, giving it some euphonious name, sampling the physicians with it in precisely the same manner in which the aforesaid houses do, asking them to use it in their own mouths and in cuts and wounds in their own practice. Their experience will dictate to them that it would be just as professional, and that the beneficial results would be just as pronounced should they prescribe eucathylene as though they wrote the other preparation. Then the dental profession can be worked in the same manner. (Of course I am only speaking of ones own neighborhood.) In my own experience we get a goodly number of prescriptions for eucathylene from our own D. Ds. Some of the coal tar derivatives can be worked in the same man-

ner and the 'way' is just as legitimate and honorable as the introduction of my line of goods in competition with your line can be.

"Then, with the general public I should advocate the putting up of your own household remedies, and then advertising them by space in newspaper, circular, booklet, sample or otherwise, as experience and locality might suggest, to such an extent that the customer will 'get what he asks for,' and the article will not be Blain's or Rood's, but your own. That is the substitution which I would hold out to you as legitimate. I quote from a recent article on the subject by a western man: 'Every pharmacist must make a battle ground of his own neighborhood, combat the ready-made cure-alls and what-nots as fiercely as he would the cutter; pay less attention to the sale of putty and gum; prove to every physician in his own neighborhood that his own preparations are better than most and as good as the best.'

"The pecuniary benefit derived from such a course as outlined is considerable, but the prestige given a store by a line of remedies which years of relentless advertising and pushing have made popular is measureless.

"There are said to be signs of the times which are as legible to a close observer as the plain round hand of a school boy's writing. To me there is one of those signs in the pharmaceutical horizon, and as I spell out the letters it reads, 'Co-Operative Manufacturing.' Co-operative manufacturing has been tried very profitably in our own State along one special line only, that of cigarmaking. It has also been tried with more or less success in several parts of the country. It is still in its infancy and there are probably many difficulties to be surmounted and problems to be worked out, but it is possible that in co-operative manufacturing we may have the 'pillar of fire' which shall guide us through the 'wilderness' of pharmaceutical depression. Let us then keep our faces steadfastly toward it, and if our tills should flow, not with 'milk and honey,' but with silver and gold, it will be but just reward.

"The struggle for the adoption of the metric system of weights and measures is still before us, and it is the opinion of your president that we, as an Association, should take sides in the matter and place ourselves on record as favoring this step forward in universal progress. It took four hundred years of agitation and discussion to secure the adoption of the Arabic numerals in place of the Roman. If any member present will write down and multiply LXXXVIII by XCIX he will readily see that the 'new way' was a step in the forward direction, and yet those very agitators were undoubtedly dubbed cranks. The only countries now of importance, I might add, who have not adopted the metric system are England and the United States. Even Mexico, than which, by the way, no nation on earth has progressed more rapidly in the past twenty years, has the system in vogue. A resolution which has been adopted by some associations, and one which would be eminently appropriate for us to adopt, reads something like this:

"Whereas, Recognizing the convenience and scientific importance of the metric system of weights and measures, therefore be it resolved, That we, the members of The Michigan State Pharmaceutical Association, in fifteenth annual convention as-

sembled, unanimously adopt the same as the official system of weights and measures of this organization. Be it further resolved, That the members of this Association be requested to make use of the metric system in designating weights and measures in papers, reports and communications presented to this organization; that the officers and committees be instructed to employ the denominations of the metric system wherever weights and measures occur in their circulars or reports.

"A leading journal tells us that 'Any State Pharmaceutical Association President is guilty of a sin if he fail to mention the American Association in his address.' I shall go farther, and say that any member of this Association is equally guilty if he does not become a member of the American. Every member of the A. Ph. A. gets a direct and incalculable benefit if he attends the meetings of that body, meeting and listening to the old wheel horses of the profession, and if he but stays at home, he gets a volume of proceedings that as a work of reference is almost indispensable, including, as it does, the report on the progress of pharmacy, which in the present volume contains over five hundred pages, embracing proceedings of the various State associations (except Michigan in this instance); new apparatus and formulae, new remedies, materia medica, including botany and microscopy; inorganic chemistry, including physics; organic chemistry. In fine, if you want to keep thoroughly 'up to date' among all other things join the American Pharmaceutical Association if you are not already a member; attend the meetings if possible, read the proceedings and keep the volume always at hand as a reference work.

"The advisability of a permanent place of meeting has been much discussed in this and other organizations, and while the new place of meeting each year tends to furnish new members, the permanent place brings out the greatest attendance. My recommendation would be to dispense with the subscription which is usually circulated among local druggists, jobbers and manufacturing concerns, to fix a program of amusements, and each member to pay for his coupon tickets to all when he registers. The amount would be small compared with railroad fare and hotel bills any way. This would forever preclude the possibility of the Association's going begging for a 'spot on which to lay its weary head.' Would further recommend Detroit as that place of permanent meeting on the grounds that the greatest attendance can be counted on at that point.

"It is the opinion of your president that it would be much better to fix the time of the next meeting before adjournment, instead of leaving it to the Executive Committee, as has been done in several instances in previous years, for the reasons: all members would then know for the whole year that the State meeting is 'such a time,' and can arrange their business affairs, vacations, etc., much easier than they can when they only know it four weeks beforehand. Pharmaceutical journals can insert the date in their tables of State meetings for months previous, thereby continually reminding the readers of said date. The Secretary can keep things stirred up in like manner for three months previous to such meeting, whereas he is necessarily crowded for time under the present method.

"I would further recommend that at our annual meeting a list of four names be placed in nomination for every vacancy occurring on the Board of Pharmacy, to be given to the Governor from which to select such members of Board. This would necessitate the change of the by-laws, probably, and I would recommend such change.

"Before I close this paper I wish to urge it upon you, gentlemen, to work for increased membership in our Association. A State society is almost indispensable in the present age, when more than ever before business and professional interests need a constant and watchful eye upon them. Nearly every trade, occupation and profession in the land has its association or organization. The proposed legislation in the last session, the experience of the Ohio pharmacists with their ring of blackmailers during the past year, are illustrations of the constant dangers to which we are liable to be subjected, and are strong reminders that we should remain banded together in goodly numbers for self-preservation. But the fighting of evils and unjust legislation, although of vital importance, is not the only reason for the existence of a vigorous association. The social side of our meetings is by no means a non-essential one. The druggist's life somewhat resembles that of a hermit. His hours are long and the confinement close and constant, by no means conducive to good digestion and a composed and well-balanced mind. (And what occupation has more need of these?) Now, the recreation and change of environment to be had while attending these meetings is worth more to the penned in pill-pounder than he can measure by any denomination of our metric monetary system. The brushing up one gets by the interchange of ideas among so many who are working and striving along the same lines is worth all the time, trouble and expense undertaken in attending the meetings. Therefore, I urge it upon you, if you are not members, become such at once, and if you are so fortunate as to belong to the Association, try and induce every druggist of your acquaintance outside the ranks to fall into line.

"Now, I can but ask for your indulgence in the transaction of the business which will naturally come before the meeting and a forbearance with your presiding officer. The hope is advanced that every member present may realize every anticipated pleasure in this meeting and that, when we shall have adjourned, every one may go to his home feeling that this has been pre-eminently a successful and enjoyable gathering." (Applause.)

Mr. Webber—"I am sure we have all been thoroughly enjoying the reading of the address of our President, and I now ask what is the pleasure of the Association regarding it?"

Mr. Coleman—I move, Mr. Chairman, that a committee of four be appointed to make a report on the President's address."

Adopted.

Mr. Webber—"I will appoint on that committee, Messrs. H. G. Coleman, H. J. Brown, A. B. Schumacker and Mr. McDonald, of Kalamazoo."

President Phillips assumes the chair, Vice-President Webber retiring.

President—"The Secretary informs me that we have with us this afternoon Mr. Bennett and Mr. Bauer, of Lansing, and as they cannot stay during the entire meeting, and have something of importance to bring before our Association, I will now call on Mr. Bennett to make a few remarks."

Mr. Bennett—"Mr. President and Members of the Association:—The matter Mr. Bauer and I wish to bring before the Association is the matter of unjust and unfair liquor legislation which the pharmacists of this State have to contend and fight against at every legislative session. There are too many legitimate pharmacists in this State to allow this kind of work; of course I know, or have heard of drug stores in this State where the present liquor law is violated. Comparing these violations in numbers to the number of legitimate druggists, I am happy to say the percentage of violations is very small. I am of the opinion that if the present liquor law were strictly enforced as it should be, that there would be no need of any further legislation on this matter. During the last session of our legislature we had to fight against another liquor bill known as the Coleman bill. This bill, though Mr. Coleman may have been, and I think was, sincere in presenting it to the lawmakers of the State, was a bill which, if passed, would have done no good as a preventative of illegal liquor selling and would have added extra expense to the people of our State and extra work and extra expense to every pharmacist in the State. Now what I would like to see our Association do is to solicit a small sum from each druggist in the State, this money to go into the hands of the Treasurer of the State Association, but to be kept separately for the exclusive purpose of keeping a man who understands thoroughly the ins and outs, or the jiropes, as you would call them, of the capitol and our legislative powers, to guard against and prevent any such legislation as is unjust or unfriendly to the legitimate pharmacist. I hope you gentlemen will consider this matter thoroughly and as a result we will all be benefitted by it."

President—"We have listened to the remarks of Mr. Bennett and I consider them of much importance; probably Mr. Bauer would also like to make a few remarks, and if so, he now has the privilege of the floor."

Mr. Bauer—"Mr. Bennett has voiced my sentiments entirely, and I thank you but have nothing further to say on the subject."

President—"Gentlemen, what is your pleasure with regard to these remarks; I presume this matter should go into the hands of the Committee on Legislation."

Mr. Anderson—"I think that as the reports of the different committees are read further information on this matter may be developed. My idea is to proceed with the regular order of business and take this up later."

President—"The next in order are the communications. Have you any, Mr. Secretary?"

"Mr. Schrouder—"Here is a communication from Mr. C. C. Sherrard as follows: 'Cannot attend. Will submit my papers to Committee on Papers.'

"I have here a communication from the Proprietary Association, of which Mr. G. A. Devlin is representative, which reads as follows:

New York, August 2d, 1897.

Mr. Ben Schrouder, Grand Rapids, Mich.:

Dear Sir:—Mr. G. A. Devlin has been appointed to represent this Association at the annual meeting of your State Pharmaceutical Association, and credentials from this office have been sent to him, signed by the President and Secretary. He will convey to your Association the greetings and good will of the Proprietary Association, and will report his meeting with you at the next annual meeting of this Association. I am,

Yours very truly,

JOSEPH LEEMING, Secretary.

"Also a communication from the Mayor of St. Joseph, signed by several druggists in that city; and from the Mayor of Port Huron, and from Mr. Ed. J. Rodgers, of Port Huron, inviting us to hold our next annual meeting in their cities, which read as follows:

St. Joseph, Michigan, August 2, 1897.

To the President and Members of the Michigan State Pharmaceutical Association, Grand Ledge:

Gentlemen:—The people of the city of St. Joseph respectfully invite your Association to hold its next annual meeting in St. Joseph. We can promise you a comfortable and pleasant place for your meeting, reduced rates at the hotels, and hearty welcome from a people who have an enviable record for hospitality. Our city is admirably adapted for a summer convention, easy of access by rail or boat from any part of the State. With confident assurance you will have no cause for regret should you accept our invitation, we are yours,

Respectfully,

JOHN V. STARR, Mayor,

W. T. BRADFORD,

Secretary Board of Trade,

HOWARD & PEARL DRUG CO.,

REYNOLDS & DAHLKE,

C. N. MENOLD, Druggists

Port Huron, Mich., August 3d, 1897.

E. F. Phillips, President M. S. P. A., Grand Ledge, Mich.:

Sir:—I regret that unforeseen circumstances prevent my being with you at this, our fifteenth annual meeting. I herewith enclose a letter from our honored Mayor, which will explain itself. Read his letter, accept the invitation, and we will do the rest to make sure a merry meet next year. Wishing you may all have a merry time, I am,

Respectfully,

ED. J. RODGERS.

Ask that man Church who we are.

Port Huron, Mich., August 2d, 1897.

To the Officers and Members of the Michigan Pharmaceutical Association, Grand Ledge, Mich.:

Gentlemen:—On behalf of the citizens of Port Huron, I herewith extend a cordial and urgent invitation to your Association to hold its next annual meeting in this city. Should you decide to do so, I can assure you that nothing will be left undone to make your visit here an enjoyable one.

I need not say that Port Huron is a wide-awake city; its people active, and their hospitality up to the highest standard. As Port Huron is not fenced in and whitewashed overhead, we have no gates to open or bars to let down. All avenues, highways and byways leading into the city are open to everyone. You can come by wagon road, in ordinary vehicles, in carriages, in chaises, or on the festive bicycle. Or you can come by rail in luxuriant cars from any quarter of the State, or you can reach here in palace steamers from the north and south and enjoy a ride on the Detroit river, Lake St. Clair and St. Clair river, the connecting link in the great waterway of commerce between the east and the west.

I can assure you that the attractions in and about our city will interest you. Here you will find the greatest submarine tunnel in the world, running underneath the St. Clair river, connecting (not annexing) Canada with the United States.

If, perchance, circumstances not under your control should require a quick trip to the Queen's dominions, you can be transported without a moment's delay by the underground route, or you can take a ferry boat, a steam yacht or a row boat and find yourself outside of Uncle Sam's country quickly and without form or ceremony.

It will be worth the time of each and every one of you to spend a few days in our city. Standing on the banks of the St. Clair, or seated in Pine Grove Park, so finely located near the rapids, you will see passing almost constantly up and down that beautiful stream, elegant passenger steamers, monster steam freighters, immense barges, sail vessels and other water craft, the combined tonnage of which is greater than that which arrives and departs from all other ports of the United States, making a panorama not soon forgotten.

You can bathe in the beautiful water which flows rapidly down that river, wash in it and drink it at the same time without danger of results, unless you get beyond your depth.

Our hotel accommodations are excellent. The Hotel Harrington ranks with the best in the State. Our electric street car service is unequalled, while the police department is run in the interest and for the sole benefit and protection of visitors. The chief and the patrolmen will be hypnotized during the session of your body.

If you desire any subjects to experiment on, in order to ascertain the strength and utility of any drug or compound, they will be furnished gratuitously. We have a very few fossilized inhabitants, and a few chronic kickers, whose funerals will be well attended if your mixtures get in their work well.

Come, by all means, come. Our live, active citizens will treat you right royally. If you accept this urgent invitation and hold your next annual session in Port Huron and do not find things just as I have represented them your humble servant will pay the freight.

Very truly yours,

N. S. BOYNTON, Mayor.

"I have several applications for membership, as follows.

George O. Young, Lansing.

John S. Bennett, Lansing.

J. Frank Spinning, Lansing.

Robert S. Kimmich, Lansing.

Frederick Weinman, Lansing.

A. C. Bauer, Lansing.

John J. Sourwine, Escanaba.

D. S. Hallock, Detroit.

W. P. Doty, Detroit.

Henry Helm, Saginaw, E. S.

E. C. Martin, Capac.

"These applications are all properly endorsed and presented. I might say in connection with these applications, the Association is indebted to Mr. J. Frank Spinning, of Lansing, for the excellent work which he has done, as he is the one who brought in the Lansing applications for membership.

President—"Have the applications been examined by the Executive Committee."

Secretary—"They have not, Mr. President."

Prof. Prescott—"I move that these applications be referred to the Executive Committee."

Mr. Brown—"I move that the rules regarding applications be suspended in this instance and that the Secretary cast the ballot electing the applicants to membership of this Association at once."

Carried.

President—"Before it gets too late I wish to announce that Prof. A. B. Stevens and his son are here and have with them a stereopticon apparatus and will to-night give us an instructive and illustrative lecture on prescription work. This will be a very interesting feature of our meeting and I will expect a full attendance."

President—"I have no further business on the program for this afternoon, unless we have some papers."

Mr. A. C. Schumacker—"As the Secretary has gone to the trouble to get out badges for this meeting, I make a motion that he be instructed to present a bill to the Association for badges."

Carried.

Prof. A. B. Prescott—"I think we need not delay this matter of legislation interest of which the gentlemen from Lansing have spoken. Could we not consider it at once?"

President—"I think while we are on the subject it would be wise to listen to the report of the Committee on Trade Interests."

Mr. Webber—"I move that we listen to the report of the Committee on Trade Interests."

Carried.

On motion of Prof. Prescott, a recess of five minutes was taken to allow Mr. C. N. Anderson, of the Committee on Trade Interests, time to go to the hotel and get the report of that committee.

The meeting is again called to order by the President and Mr. Anderson proceeds as follows:

Mr. President and Members of the Association:—Your Committee on Trade Interest, appointed at the last session of this Association, begs leave to submit the following through its Chairman:

In attempting to lay a report on "Trade Interest" before this Association, the Chairman feels for himself, as well as for the other members of the committee, a certain lack of capacity to bring to your notice something that will prove of interest and be beneficial. The task, while seemingly a light one at the outset, is made much more difficult when the report of other trade committees made in the past is considered, for this reason: that in almost every report that has been submitted to this Association the same material has been threshed over time and again and certain actions urged upon this Association in regard to the conditions that affect our business welfare and upon which (as far as the writer can observe), they have never been taken up and acted upon in a thorough business-like way. The committees have labored and prepared reports, made certain suggestions which have been listened to with more or less attention, only to meet the usual fate—printed and that ended it. Now, if it were possible to make a report so interesting as to stir this convention into action thereon, it would indeed be an ideal result. But, unfortunately, the Chairman feels his incompetency to prepare such a dynamic missive, and so to gain strength he addressed the several members of the committee individually asking them to contribute to the trade report for this year and with the flattering result that one member thereof had the courtesy to acknowledge the receipt of this communication with the statement "that he would say something if he thought of it later on," and the balance of the committee remained in that beautiful and undisturbed silence that seems to reign so generally through the mind of the retail drug merchant. Therefore, the desire to accumulate knowledge to lay before you has proven a signal failure.

In 1895, as Chairman of the Trade Committee, I spent considerable time on the preparation of an elaborate report in which I touched upon the various conditions of the retail drug trade, and I actually felt that at that time I exhausted my ability, and with this result—to find that my efforts had cost me some considerable

expense and were carefully laid away on the shelf in the printed report of that meeting with no other action taken thereon. This brings me up to a point where I am at a loss to say anything further on the score of manufacturing, which was the essential feature in the report rendered in 1895.

Last year a report was submitted by Mr. F. J. Todd, of Detroit, which was not even accepted by the Association, and with the fear that my report may meet the same fate, I hesitate to enter into the field. With your kind permission, and with the hopes of not disturbing the serenity of any one, I will try and say a few things (and trust it will not have a tendency to irritate anybody into action), and they can be tabled in a most polite and gentlemanly way and follow the fate of their numerous predecessors—in the doleful silence that leads to the grave.

In reviewing the conditions of the trade, I find through the different cities in which I have been this year, that the same old chestnuts are still in the minds of the druggists, and as the beard of the said chestnut grows longer and the growth becomes more luxuriant, the wind whistles through the whiskers and sighs a doleful lay of "how the retail druggists suffer." The first on the list is the patent medicine evil. This hydra-headed monster stalks unopposed throughout the land and in each and every village (with the assistance of the cutter) mows down the profits of the retail drug dealer, who sighs for the times of ten years ago when he could do business with a profit. And yet, has anything practical been done by the retail druggists to guard against the spreading of this evil? I am glad to say that in a measure there has been a little done.

We find to-day the pharmaceutical and medical press filled with fallacious articles written by the pen of the patent medicine dealer, who, fearing the competition of certain enterprises in the manufacturing line (conducted by the retail druggists) are beginning to tell the public what a horrible crime and evil it is for the druggists to substitute anything of his own make, which he is perfectly competent to make and which he knows how to make, and upon which he is willing to risk his reputation, to be sold to the trusting public in lieu of his patent product, of which they know nothing except what they learn from the press, the dodger, dead walls and other methods employed by the patent medicine vender, to substantiate the purity and value of his nostrums.

In the columns of local papers as reading matter, the public is warned against accepting any substitute. From this the public are educated to know how careful they must be in dealing with their druggist, who might swindle them, and by this is created distrust and dissatisfaction in the mind of your customer, so that you may be obliged to sell the patent preparations that you know nothing of.

How long the retail drug trade will allow themselves to be bound down by these insidious methods of doing business is a question that would be hard to answer. In my mind the patience of Job was a feeble effort when compared with the patience of the ordinary retail druggist. Therefore, in a mild manner, I would recommend that against such houses who use these means of bolstering up their nostrums, a most energetic and indefatigable warfare be pursued.

How to pursue this was carefully laid before the Association at their meeting of 1895—by manufacturing on a mutual basis. Whether you intend to take any action or not rests with yourselves.

At the meeting of 1896 we had a very spirited discussion about the efficacy of our Legislative Committee, in which it was decided that our present method was most favorable and effective. During the session of the legislature of this State in 1897 a most insidious and annoying bill was introduced against the retail drug trade. This bill was backed by the temperance leaders on one side and the saloon element on the other. The devil and the saint shook hands over the bloody chasm to roast the poor druggists, and in the eleventh hour it was discovered and fortunately (by the action of a few druggists and assisted nobly by the wholesale trade) the bill never passed the house. But it taught us a lesson—and that is, at the next session of the legislature we will again be attacked in a similar way. To avoid this a committee (of active men, thoroughly alive to the welfare of the retail drug trade) should be appointed, and our present pharmaceutical law amended so that we may wipe out the saloon element of certain drug stores and maintain our legitimate rights and not invite another attack of this description.

I further believe that the enforcement of the amended law should be placed in the hands of the Board of Pharmacy, who have ample capital to carry it out with, thus bringing the maintenance of legitimate pharmacy and the Board of Pharmacy under one head where it can be properly looked after and controlled. We have everything to fear from ignorant legislation and it is wise for us now to take such action that will protect us against further inroads on our business.

The few druggists who fought this measure in the last legislature paid for the same out of their own pockets—the entire drug trade of Michigan profited by it. It is not supposed that all druggists (or the majority of druggists) are willing to accept the time or the money of these druggists for their benefit and would be quite willing to share in the expense of watching these movements in the legislature, and I suggest that some movement be put on foot to cover the financial features of the case.

It would be quite possible to extend this report further in dilating upon the different questions that come before this Association from time to time, but this would be quite unnecessary because in the reports of 1895 and 1896 there is still a large amount of undigested matter. If we want material to discuss we can easily review these reports and discuss them, but to report them over would take up time. I therefore leave it to the members of the Association if they care to consider any of the material furnished at that time.

I only hope that in closing this report that the members of this Association will not feel entirely satisfied to drop the matter as they walk out of the door of this meeting and feel that they have nothing to fear from legislation or pure food laws that promise to further encroach on their trade, but that they may decide to take some definite action for their own good. We have witnessed the struggle that Ohio has gone through—the chicanery and fraud which surrounded the administration of pure food laws—and while we have no doubt that the Michigan Commission

is upright, there may come a time some day when we will have a rude awakening and then we should be prepared to act.

There is one thing that is true and that is the condition of the retail druggist grows worse and worse every year, and unless we do something to conserve to ourselves certain legitimate lines of business, the fate of the drug store to-day will be a curtailment rather than an expansion of its business operations and it will eventually drift into the small apothecary shop where an occasional prescription will be brought in which there is little profit, and only a miserable existence will be the fate of the druggist.

Regretting sincerely that the members of the Trade Committee have not deemed it expedient to submit their views at this time through their Chairman, and also regretting my own incompetency to place before you a more desirable report, I am,

Most respectfully,

C. N. ANDERSON, Chairman.

President—"Before doing anything with Mr. Anderson's valuable paper I wish to announce that Mr. Doherty, the Mayor of Grand Ledge, has just arrived and apologizes for not being here at the opening of the meeting, which was caused by misunderstanding, but he assures us that Mr. Schumacher was all right in making his address of welcome, and heartily endorses the cordial welcome extended to us by the people of Grand Ledge." (Applause.)

President—"Now what is your pleasure regarding the able report of the Committee on Trade Interests?"

Mr. Schumacher—"I move, Mr. President, that a committee of three be appointed to consider this report."

Carried.

President—"I will appoint on that committee Messrs. Weber, Schumacher and Mann."

Mr. Brown—"I think it is in order to go into discussion on the remarks made by Mr. Bennett, of Lansing, and Mr. C. N. Anderson's report, and that some action be taken at once regarding pharmaceutical legislation."

Mr. Schumacher—"I wish to say that I heartily endorse the plan as outlined by Mr. Bennett, and I also think that Mr. Anderson is right in recommending such endorsement. Mr. Anderson has had a great deal of experience at Lansing, probably more this year than any of us, and I do not think it would be amiss that a fund be raised and set aside purposely to guard against legislation that is unjust."

Mr. President—"This matter will all come before us again at another session when we can give it more time. If there are no objections we will now listen to the report of the Secretary of the Board of Pharmacy."

Mr. F. W. R. Perry reads report of Board of Pharmacy.
To the Michigan Pharmaceutical Association.

Gentlemen:—In accordance with the provisions of Act No. 134, Laws of 1886, I herewith submit my report as Secretary of the Michigan Board of Pharmacy for the year ending June 30th, 1897.

Yours respectfully,
F. W. R. PERRY,
Secretary Michigan Board of Pharmacy.

RECEIPTS.

Balance on hand June 30th, 1896.....	\$ 847.00	
From 3,031 renewals Registered Pharmacist..	3,031.00	
From 272 renewals, Assistant.....	136.00	
From 165 applications for examination at \$3..	495.00	
From 67 applications for examination at \$1....	67.00	
From State Treasurer	500.00	\$5,076.00

DISBURSEMENTS.

Sent to Geo. Gundrum, Treasurer.....	\$4,347.00	
Balance on hand, June 30th, 1897.....	729.00	\$5,076.00

During the year we have issued certificates to licentiates of other boards as follows:

W. J. Boulet, Escanaba, from Wisconsin.
P. Groos, Jr., West Depere, Wis., from Wisconsin.
B. Frankson, Gladstone, from Missouri.
J. Lavigne, Escanaba, from Wisconsin.
A. J. Donnelly, Palatka, Fla., from Florida.
C. W. Brandon, New Whatcom, Wash., from Washington.
J. L. McRae, Escanaba, from Wisconsin.
G. E. Hensel, Gould City, from Wisconsin.
J. LaSalle, Wakefield, from Wisconsin.
Three regular examinations have been held at—
Lansing, November 4, 5 and 6, 1896.
Grand Rapids, March 2 and 3, 1897.
Star Island, June 28 and 29, 1897.
And two special examinations at—
Marquette, August 7 and 8, 1896.
Detroit, January 5 and 6, 1897.

The following table shows the number of persons examined and passed:

	Examined.		Passed.		50% Ruling.
	R. P.	Asst.	R. P.	Asst.	
Marquette	12	2	7		
Lansing	43	7	13	3	9
Detroit	42	12	9	6	9
Star Island	65	14	19	5	18
Grand Rapids	50	11	17	4	9
	212	46	65	18	45

We have received ninety complaints of violation, eighty-four of which were given to Mr. A. E. Ewing, the Board's Attorney, for prosecution, with the following results:—

Convicted	39
Acquitted	1
Dropped on recommend of Attorney.....	36
Dismissed by Prosecuting Attorney.....	1
In hands of Attorney.....	3
In hands of Secretary.....	6
Left State.....	1
Left city	2
Jury disagreed.....	1

Total..... 90

Total fines and costs.....\$ 512.45

Total fines and costs to beginning of year..... 2,092.98

Total fines and costs to date..... \$2,605.43

Expense of prosecutions for the year..... 771.86

Expense of prosecutions for previous years..... 7,246.34

Total to date 8,018.20

Notice to cease to act as Registered Pharmacist or Assistant Registered Pharmacist was mailed to all who had failed to renew January 21st, 1897, as ordered by the Board at its November meeting. One hundred and eight Registered Pharmacists and twenty-five Assistants were thus notified; one hundred and two Registered Pharmacists and seventy-two Assistants failed to renew as follows:—

SUMMARY.

Registered Pharmacists at close of current year..... 3,093

Registered Assistants at close of current year..... 311

F. W. R. PERRY,

Secretary.

Mr. Coleman—"I move that this report be accepted, placed on file, and published in our next proceedings."

Adopted.

Mr. President—"I believe that Prof. Prescott has a paper on the enforcement of laws against the adulteration of drugs. If there are no objections we will now listen to him.

Prof. Prescott addresses the convention and reads his paper.

"I submit a proposition almost self-evident, that for the management of legal measures to check drug adulteration, a good body of representative pharmacists are and will be more competent, more just, more considerate and more effectual, than any other official body. To raise, step by step, the general standard of purity of medicines, and to stop the worst impurities first, in

a common-sense way, is the proper aim of adulteration law. To this end, we need just the same qualifications that we need on the Board of Pharmacy. These qualifications are, in fact, as I believe, more likely to be found in a State Board of Pharmacy than elsewhere. It is the profession of pharmacy that has built up the standards of purity and strength of drugs, and found the methods of analytical determination. It is the duty and privilege of pharmacy to correct its own deviations from its own standards.

Over half of the State laws for the regulation and limitation of the practice of pharmacy have a clause making adulteration of drugs an offense. In Wedderburn's compilation of pharmacy laws, made in 1893, I find an anti-adulteration clause in the law of California, District of Columbia, Georgia, Illinois, Iowa, Kansas, Maryland, Michigan, Minnesota, Mississippi, Nebraska, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Virginia and Washington. I may have overlooked others. All of these laws make it the duty of the Board of Pharmacy to enforce them, including these provisions against adulterations. In our own law, and in most others, the provision is explicit: "The Board of Pharmacy is hereby empowered to employ an analyst or chemist, whose duty it shall be to examine into the so-called adulterations, substitution or alteration, and report the result of his investigation; * * *" The fines—twenty-five to one hundred and fifty dollars—would go in liquidation of expenses, to the State if not to the Board.

Nearly all the States whose pharmacy laws have clauses against adulteration of drugs, have other laws against adulteration of foods, drinks and drugs, these other laws giving no duty to a Board of Pharmacy. The pharmacy law of Ohio has not anti-adulteration clause, neither has that of Massachusetts, nor that of Wisconsin. The active measures to check adulteration of drugs by law, in this country, have been taken along with like measures for foods, either by Boards of Health, as in Massachusetts, or by Dairy and Food Commissioners, as in Ohio. In Michigan, the new law to prevent the adulteration of foods, in the hands of the Food and Dairy Commissioner, does not deal with medicines at all, leaving these to the Board of Pharmacy. The Dairy and Food Commission of Michigan is now well inaugurated, and handsomely supported by the Legislature in its last session. They are going forward for pure foods. All over the world, food and drugs have gone together in suppression of adulterations. In this State, then, there would seem to be a loud call to the Board of Pharmacy to fill the gap. And this is the opportunity to prove the fitness of a Board of Pharmacy to do this service.

How far a true judicial interpretation of the adulteration clause of the Michigan pharmacy law would carry its application, I do not know. Whether this application will prove to be limited by the words, "with the intention to defraud or deceive the purchaser," I do not know. In the greater number of the pharmacy laws which carry an adulteration clause, this clause begins with the words, "Every registered pharmacist shall be held responsible for the quality of all drugs, chemicals, and medicines he may sell or dispense, with the exception of those sold in the

original packages of the manufacturer, and also those known as 'patent medicines.' " * In the case of the law for pure foods in the State of Michigan, the Supreme Court of the State has decided that "the Legislature did not intend to make criminal intent or guilty knowledge a necessary ingredient of the offense. * * * As a rule, there can be no crime without criminal intent; but this is not by any means a universal rule." It is a question as to the intent of the law. But it is not reasonable that a law which, as its chief end, requires professional knowledge on the part of the pharmacist should make ignorance or inattention a release from the penalty for malpractice. On the other hand, the man who adulterates a medicine or manufactures it below standard, ought to be called to account earlier and more severely than the man who merely allows himself to be the salesman of the same articles. At any rate, a Board of Pharmacy would be the officers of best service in bringing the law to bear upon the root of the evil.

Ann Arbor, August 2, 1897.

President—"Gentlemen, what will we do with Mr. Prescott's paper?"

Mr. Anderson—"Would the Board of Pharmacy have power to take action regarding adulteration?"

Prof. Prescott replies by reading the laws applying to such cases. (See Sec. 11, Pharmacy Law.)

Mr. Schrouder—"I move that Prof. Prescott's paper be accepted and published in our proceedings."

Adopted.

Mr. Fildew—"I would suggest that the Association members each be asked to pay two dollars a year dues instead of one dollar, and that we place the extra dollar received into a fund to be used for legislative purposes only. Two dollars is not very much for each druggist to put up every year, when you stop to consider the good it would do.

Mr. Anderson—"I think that if Mr. Fildew were aware of the ways of the pharmacists of Michigan he would reconsider such a suggestion, for I can assure him that it would be almost out of the question to even consider such an idea as raising the dues. I think the Secretary finds it pretty hard work even now to get one dollar per year dues from our members."

Mr. Brown—"I move, Mr. President, that we adjourn until the evening session."

Carried.

*Law of New York.

SECOND SESSION.

The second session was held Tuesday evening at 8 o'clock. and was called to order by the President.

President—"I believe the first thing before the Association to-night is the report of the Secretary and Treasurer. Mr. Secretary, will you please read the report?"

REPORT OF SECRETARY AND TREASURER.

RECEIPTS.

Dues collected, including new members:

Membership fee and receipts of this meeting.....	\$244 00
Profits on 1896 proceedings.....	50 00
Profits on 1897 announcement.....	35 00
Total	<u>\$329 00</u>

Paid to Treasurer—

February 2, 1897.....	\$ 25 00
February 22, 1897.....	33 00
August 4, 1897.....	271 00
Total	<u>\$329 00</u>

DISBURSEMENTS.

Paid by Treasurer—

Feb. 2, 1897, warrant B3, Tradesman Co.....	\$ 5 75
Feb. 2, 1897, warrant B7, E. T. Webb.....	6 65
Feb. 9, 1897, warrant B8, Martin & Wurzburg.....	5 00
Feb. 9, 1897, warrant B9, Heuson & Johnson.....	2 50

Aug. 4, 1897, to B. Schrouder, Secretary, for following items:

Aug. 1, 1896, to printing 4,000 slip letters for '96 meeting, (Church) Germania Co.....	4 00
Aug. 12, 1896, to Heuson & Johnson, 1, 000 M. S. P. A. envelopes	2 50
Aug. 13, 1896, to M. G. Bailey, for dockage and freight on prizes, '96 meeting	1 36
Aug. 13, 1896, to Anna Schrouder, reporting and typewriting '96 meeting	30 00
Sept. 18, 1896, C. N. Anderson, for printing and mailing circulars	5 00
Sept. 18, 1896, B. Schrouder, postage.....	1 00
Nov. 10, 1896, B. Schrouder, balance of 1896 salary.....	38 17
Jan. 1, 1897, B. Schrouder, postages, notices of dues and mailing certificates	15 00

MICHIGAN STATE PHARMACEUTICAL ASSOCIATION.

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July 1, 1897, B. Schrouder, postage, soliciting contributions for prizes	4 00
July 15, 1897, B. Schrouder, postage for dues notices again and replies	6 00
July 10, 1897, West. Mich. Printing Co., 500 letterheads...	2 00
July 8, 1897, C. S. Cole & Co., 100 silk badges, '97 meeting.	5 12
July 8, 1897, engraving certificate for member.....	50
July 8, 1897, C. F. Mann, Treasurer, exchange and postage.	85
Aug. 4, 1897, part of Secretary's 1897 salary.....	193 60
Total	\$329 00

Respectfully submitted,

August 4, 1897.

B. SCHROUDER, Secretary.

President—"If the members present have no objections, this report will take its usual course and be referred to the Executive Committee."

Mr. Parkill—"I move that this report be referred to the Executive Committee."

Adopted.

President—"We will now listen to the report of the Committee on President's Address."

Mr. Coleman—"Mr. President, a committee as appointed by Vice-President Webber to make a report on the President's address, begs to offer the following:"

Mr. President and Members of the M. S. P. A.:

Gentlemen—Your committee appointed to consider the able and interesting address of President Phillips, would report that we have carefully reviewed the same, and that among the many valuable suggestions and recommendations which it contains, we find the following which, we think, should receive special consideration, and on which the Association should take action at this time:

First. His recommendation regarding the popularizing of the metric system of weights and measures, and the adoption by the Association of a resolution as outlined by him to that end.

Second. His recommendation relative to a uniform place for holding our annual meetings.

Third. His recommendation that we fix the time for our next annual meeting during this session.

The Committee also ventures to suggest that the time for our meeting be the Tuesday following the first Monday in August.

Fourth. Your Committee fully concur with the President in urging all members to exert themselves in extending the membership of the Association.

All of which is respectfully submitted.

H. G. COLEMAN,
A. B. SCHUMAKER,
GEO. McDONALD,
H. J. BROWN,

Committee.

Mr. Church—"I move, Mr. President, that the report of this committee be accepted and ordered printed in our next proceedings."

Adopted.

Mr. Schrouder—"I move that the committee appointed by the President on the report of the Committee on Trade Matters be requested to read their report."

Carried.

Mr. Webber reads the report, as follows:

We, the special committee appointed to report on Trade Interests' Committee Report, respectfully submit the following recommendations:

First. In regard to mutual manufacturing for the benefit of retail druggists. We coincide with the recommendation made by the President in his address, and we think the matter worthy of discussion by the Association.

Second. We believe the druggists should take action individually in waging a persistent warfare against any and all manufacturers and proprietors who are using the public press in any form for the purpose of creating distrust in the minds of the public regarding the integrity of drugs, medicines, etc., dispensed by them; and we further recommend the selling of our own preparations as against the ones so advertised.

Third. In regard to legislation, we recommend the following: That the Legislative Committee, to be appointed, take up the question of raising funds for the protection of the retail drug interests of the State of Michigan in the following manner: The members of this Association contribute enough money to circularize every druggist in this State, asking him to contribute one dollar for the purpose of creating a fund for watching legislation. The amount necessary is estimated at fifty dollars for the announcements, the amount so collected to be deposited with the Treasurer of the Association in a separate account, and used only for legislative purposes.

Fourth. In regard to the amendments of the pharmacy law, we believe that the matter should be placed in the hands of a competent committee of three members, and the present law so revised that it will in a great measure embody a protection of the liquor interests that will relieve the druggists of the odium of drug store saloons; and the prosecution of this law be placed in the hands of the Pharmacy Board, and make such other changes in the law as this Association deem advisable.

A. H. WEBBER,

A. C. SCHUMACHER,

C. F. MANN,

Committee.

Mr. Brown—"I move that the report be accepted and laid on the table until the next session."

Adopted.

President—"I believe the Secretary has some communications which ought to be read this evening."

Mr. Schrouder—"Mr. Bennett, of Lansing, is here, and wishes to make a few remarks regarding our next meeting."

Mr. Bennett—"In behalf of the druggists and citizens of Lansing, I desire to invite you as members of the Michigan State Pharmaceutical Association to hold your next annual meeting in our city, and, if you accept this invitation, I will guarantee to you a good time and successful meeting. The meetings could be held in the hall of the House of Representatives, which is large and commodious and well adapted for meetings of this kind. We have many institutions in our city which are of great interest to all citizens in the State, and we would take pleasure in showing you through them, especially the School for the Blind and the Agricultural College. Lansing is a beautiful city, and I assure you that we will spare no pains to prove to you the real hospitality the Lansing pharmacists would show."

Applause.

President—"If there is no other special business to come before the convention to-night, I will now introduce to you Prof. A. B. Stevens, of Ann Arbor, who, though by no means a stranger to us, is not personally acquainted with all the members here."

Applause.

Prof. Stevens—"The reason I brought my stereopticon apparatus to this convention is that I wish to show to you one of the ways in which we teach the practical side of pharmacy in the University of Michigan. I will show you to-night prescriptions of different kinds, some of them difficult to read, some of them incompatibles, and some of them with directions that cannot be followed. These prescriptions are nearly every one of them original, and none of them were written for the occasion. In showing them before a class with this apparatus, you can readily see how much more can be accomplished in this way than by the old method of passing single prescriptions from desk to desk. In connection with this exhibition, I wish to say to all present, that if you will send to me, in care of the School of Pharmacy, all prescriptions which you get and consider difficult in any way, we will be glad to assist you in this work, for it will be to our mutual advantage. I wish you would send original ones, if possible."

After Prof. Stevens' valuable and instructive lecture on prescription work, a hearty vote of thanks was extended and the meeting adjourned until the next session.

THIRD SESSION.

The third session was called to order at 9 o'clock Wednesday morning by the President, who spoke as follows:

President—"We shall have to change our programme a little this morning, as the Executive Committee say they have about

two weeks' work before them. Perhaps we might as well take up the discussion of the special committee's report on the Trade Interests Committee's report.

"We also have some papers this morning, one by Prof. Prescott on the 'Sale of Poisons and Registration Thereof,' and another by Mr. John J. Sourwine regarding a 'National Guarantee Label.' We will now listen to Dr. Prescott's remarks."

Dr. Prescott—"I wish to call your attention to the question arising in the American Pharmaceutical Association which is creating so much interest—so much that some of us have been giving new thought to the subject in the past year—the question regarding the law regulating the sale of poisons. When we think of it, it is a subject of the very first importance, inasmuch as the responsibility and importance of the pharmacist lies almost entirely in the sale of poisons. We all understand that a registered pharmacist is such because he has poisons to sell to the public. We know that there is scarcely any distinction between medicines used for poisons or otherwise, only a different gradation between medicines that are poisons and medicines which may be said not to be poisons. The public naturally holds the pharmacist responsible in respect to the furnishing of poisons. For this reason: we have a State law for the regulation of the sale of poisons. This law requires of the pharmacist when selling a poison that said poison be properly labeled, also that the pharmacist keep a complete record of all poison sales, the record to consist of the name of purchaser, amount purchased, date of purchase, and the use the purchaser intends to make of said poison. In my judgment, the poisons sold by pharmacists are labeled faithfully, and his sales and record thereof comply with the law as well as can be expected. I believe Prof. Stevens voices my sentiment regarding poisons furnished on the prescriptions of the regular physician. I believe these prescriptions should contain no other label (unless so specified by the physician) and that no other legislation is required for a law to compel the registration of these prescriptions—the law requiring that there shall be some action taken to hold the purchaser responsible for his act in the purchase of poisons. The danger of poisoning implies to accidental poisoning, suicidal and homicidal. The physician to make the proper inquiries in a case of accidental poisoning, or poisoning, as to whether the purchaser was of sound mind, acting in good faith, and capable of exercising the right of a citizen to buy such medicines as he may want in the treatment of diseases. The pharmacist has a certain responsibility to inquire into in such cases. He naturally feels it is a great question as to the advantage of registering certain poisons, because he says he cannot help this individual from buying poison. The pharmacist is apt to confine his thoughts to this matter of the many purposes for the registration of poisons to avoid a fuss. I will read the law regarding the labeling of poisons and registration thereof." (Reads law.)

MICHIGAN STATE PHARMACEUTICAL ASSOCIATION.

"OFFENCES AGAINST THE PUBLIC HEALTH."

"Rev. Stat., Vol. 2.

"§3320. Sec. 5. Am., 1873, p. 86. Apr. 4, July 31, Act 74. Every apothecary, druggist or other person, who shall sell and deliver at retail any arsenic, corrosive sublimate, prussic acid, or other substance or liquid usually denominated poisonous, without having the word 'Poison' and the true name thereof, and the name of some simple antidote, if any is known, written or printed upon a label attached to the vial, box, or parcel containing the same, shall be punished by a fine not exceeding one hundred dollars.

"SALE OF POISONS."

"§321. 1863, p. 182, Mar. 17, June 22, Act 123. Section 1. The People of the State of Michigan enact, that every apothecary, druggist, or other person who sells any arsenic, strychnine, corrosive sublimate, prussic acid, or other poison, shall keep a record of the date of such sale, the article and amount thereof sold, and the person or persons to whom delivered, and their residence, which record shall be open to the inspection of any police officer or physician during the business hours of each day; and each and every neglect to keep such record as herein provided, shall be deemed a misdemeanor, and the person or persons guilty thereof shall, upon conviction thereof, be liable to a fine not exceeding fifty dollars.

"§322. Sec. 2. The giving of a false or fictitious name to the apothecary, druggist, or other person from whom such poison was purchased, shall be deemed a misdemeanor, and the person or persons guilty thereof shall, upon conviction thereof, be liable to a fine not exceeding fifty dollars.

"1895. (No. 145.) An act to prohibit the exposure of poisons so as to endanger the lives of animals.

"Sec. 1. The People of the State of Michigan enact, that it shall be unlawful for any person to expose any known poisonous substance, whether mixed with meat or other food or not, so that the same shall be liable to be eaten by any horses, cattle, dogs, or other beasts of another; and any person so exposing any known poison shall, on conviction of such offense, be punished by imprisonment in the county jail not more than three months, or by fine of not less than ten or more than one hundred dollars, or by both such fine and imprisonment: Provided, that it shall not be unlawful to expose on one's own premises common rat poisons mixed only with vegetable substances, nor for any person to expose on his own premises, not within the limits of any incorporated city or village, poisons for the destruction of predatory or prowling animals.

"Approved May 16, 1895."

"Many States have no laws requiring the registration of the sale of poisons. In some instances there is no poison law of any kind; nevertheless, many pharmacists in these States keep a careful record of such sales and are very cautious in dispensing such medicines, an act of their own that is purely voluntary and wise. If we are to have any new legislation in the matter of the sale of poisons, I would recommend that the Association fix a

schedule of poisons, and one so narrow and simple that every pharmacist would and could strictly adhere to. Secondly, I would recommend that the State Board of Pharmacy take this same law in hand and enforce it to the letter."

Prof. Prescott's remarks were followed by considerable discussion, and the laws of our State were quoted in many instances. The discussion was carried principally by Mr. A. C. Schumacher, O. Eberbach, Mr. Brown and Mr. George Gundrum, but no definite action was taken.

President—"I am sure we are grateful to Dr. Prescott for his kindly admonition, and can say that such talks are what we want. This matter has aroused our interest and causes us to be very thoughtful in the matter of the sale of poisons."

President—"I have the honor this morning of announcing to this convention that we have with us one of our new members, one who has an idea, one who has something new to say in the way of a plan to stop cut rates. This gentleman prepared a valuable paper on the subject, and was the lucky winner of a fifty-dollar cash prize for his paper in a recent contest. I have the pleasure, gentlemen, of introducing to you our brother druggist and member, Mr. John J. Sourwine, of Escanaba."

Mr. Sourwine—"Mr. President and members of the Association, I thank our President for so kindly bringing me before you and for his words of eloquence. I am sorry that I am not able to respond extemporaneously, and as a matter of consequence I respectfully beg your indulgence in these few remarks." Mr. President, Ladies and Gentlemen of the Association:

It has always been my belief that the evil of price-cutting, especially as applied to the drug trade, has many worse features than the mere business destroyer, and that the general public should be apprised of its destructive results in every detail.

It breeds deception, substitution, illiteracy, unprofessionalism, unbusiness-like methods, and lower morals, which in turn inaugurates a lower standard of remedies, heretofore possessing merit, and encourages the public to seek the still cheaper article: science has lost its advantage ground, the merchant his respectability, and unsuspecting humanity gained—maltreatment.

The student, the graduate, and the competent pharmacist, has such a very low estimate placed upon his mental training and practical knowledge, that he also soon forgets professional ethics in the mad rush of illiterate competition, and loses his identity in the vortex of barter and trade. When learned physicians are forced to practice quackery to earn a reputation, and well-qualified pharmacists are driven to the level of common "fakirs," the time is certainly ripe for a plan or method by which the true profession can be elevated to a higher sphere of citizenship. I have further believed that any plan or means adopted, and pushed with sufficient vigor to insure enthusiasm and activity among those interested, would ultimately succeed in accomplishing the desired reforms. Our procrastination forti-

fles the opposition in the estimation of the uninformed, and a worthy cause suffers for want of a vallant and dignified defense.

What our calling requires to-day more than anything else, is a start on a businesslike basis, with some plan which is not susceptible to the whims of the proverbial old foggy, the chronic kicker, or the dead man trying to do a live business; a plan broad enough in its beneficent results to secure the hearty co-operation of the manufacturer and retailer on an equal footing, yet rigid enough in its tenets to deal intelligently with a serious situation. A plan drawn and practiced upon honor alone, would soon cast discredit and shady reflections on its own genealogy, as the tares that have already crept in have seemingly contaminated the whole structure. But when an agreement is reached whereby the manufacturer's and retailer's interests become identical, the rest will be comparatively easy, and from the fact that one of the large manufacturers has already inaugurated a movement in this direction, it is evident that the retailers are not alone in their efforts to secure protection against the price-cutting evil.

Some time ago the Pabst Brewing Company, of Milwaukee, offered four very liberal prizes for the four best articles on this subject, and opened the contest to the druggists of the United States. Replies were received from every state and territory, and ranged in size from a postal card to a four-sheet poster, which would indicate that the general sentiment is to try something. My paper was awarded one of the prizes, and, while I do not claim perfection for it in its present condition, yet I believe it can be made effective if taken up by the manufacturers and supported by the retailers.

To attempt to organize the manufacturers, wholesalers and retailers into one body, and then agreeing upon a line of action for mutual protection, is a task greater than the capabilities of our best organizers, but by the adpotion of the National Guaranty Label by the National Association, makes it compulsory on the rest to follow.

First. It guarantees to the manufacturer that he will receive the benefit of his advertising, and that his goods are sold when called for. If the goods are meritorious, they are handled through the proper channels, and the supply is always equal to the demand. No one can place a similar article on the market and pass it off as genuine, as his goods are protected from the time they leave his hands until they are in those of the consumer.

Second. The retailer is assured that his stock is not to be depreciated by some irresponsible person across the way, who seeks to gain trade by making leaders of his staple articles. Nor will the druggist who is inclined to do so be able to cut prices and remain in business long, as in nearly every town and village he has competitors who can defend their own interests by enforcing the provisions of the Guaranty Label.

It also enables him to assist in advertising the merits of goods sold under a positive guarantee, that they are genuine, that they are fresh and worthy of confidence. It will be still further to his interest to let the public know that he and the manufacturers are doing business hand in hand.

Third. The public will soon learn to purchase medicines of responsible dealers who are doing business on a plan that

checks against fraud and deception. In a very short time the Guaranty Label will be more familiar to the public than the best advertised preparation, and each purchaser, to guard against frauds or possible mistakes, will require that the label be placed upon every article he buys in the drug line. He will also soon learn that where the National Guaranty Label is displayed and used, there an honest business is conducted, that deception is not practiced and substitution is prohibited.

Some skeptics may view this plan with suspicion and as being in the nature of a trust; but it cannot be so construed, as it only seeks to maintain existing prices long established, and places the responsibility on those who are measured by statute as to their competency. I ask nothing from my country or countrymen that has not enough of the true spirit of liberty about it to be called American, but I do claim that when any branch of our commerce falls into disrepute, as the drug trade of to-day, it should be remodeled, and upon lines in harmony with the views of those who seek to elevate it.

I desire to submit herewith my plan of self-protection to the business interests of legitimate concerns, established by years of study and application to principles, to the druggists of Michigan for their consideration, seeking only to elevate the commerce of our republic to the plane of Christian citizenship. My feeble yet earnest effort is not biased merely by the hope of individual reward for an acceptable method of elevating an honorable profession above the level of gross deception, imitators and cut-throat devices, but in the hope that I may also assist in placing legitimate trade in the sphere of moral development. In this era of low prices, imitators, fakirs and stagnant firms, the honest survivor has learned that the dishonest advertiser, the cut-throat department store and all other illiterate venders of merchandise, are looked upon as the successful business man, and the real benefactor of the human race. He has also become painfully conscious of the fact that honor in the business world of to-day is to an alarming degree only a fitting memory of other days. His signal of inevitable distress is answered from the top of some cut-price concern with a white muslin streamer bearing the legend, "Prices cut in two." His wall of despair in the throes of illiterate competition is lost in the sea of drowning thousands like himself who cherished honor in business life and lost; and as a survivor of this deplorable condition, still struggling with fate, intermingled with a remnant of humanity whose estimation of citizenship occupies the same altitude as the price of their worthless goods, I believe that the day has already dawned when the honest tradesman should assert his rights by rearranging the battlements in defense of his own position.

The plan or method which I have outlined places the whole matter under a national head, and yet can be adopted with the same effective results by a single firm, so far as his products are concerned. But the prime object to be attained is that it places the transgressor or would-be cutter in the category of either a perjurer or counterfeiter, and in either case there is sufficient punishment in any State to fit the crime.

There is also an excrement of indigent humanity, whose present and prehistoric instincts preclude the possibility of their ever evolving anything through manual labor to enrich the

world's commerce, but whose dormant forces seem destined to suck the lifeblood from inventive genius and pauperize the active brain, and, as a result, many of the victims of this despicable condition, who hold certificates of long study and learning, are forced to accept positions from their destroyers, and under whose registered ability the vampires of the age continue their work of destruction.

Under the method which I have suggested, neither perjury nor subtle theft could give them a license to traffic on the spoils of a ruined enterprise. I believe, therefore, that commercial piracy should be classified as a criminal offence, and that their opportunities be restricted by conditions susceptible to the laws of our country.

I am also convinced that if the manufacturers will adopt this method, giving the same publicity to the National Guaranty Label that they do to the merits of their goods, and cautioning the public against purchasing from a druggist who cannot furnish it, in less than one year "cutting" in the drug line will have ceased. Then multiplied thousands will re-christen into a National anthem that old camp-meeting song: "Ain't I Glad I'm Out of the Wilderness."

A PLAN TO STOP PRICE-CUTTING IN THE DRUG TRADE.

The National Wholesale Druggists' and Proprietors' Association will establish a "National Guaranty Label" of some original and distinct design, and have the same registered in the United States and Canada.

Make all legitimate druggists, who desire it, members of the Guaranty Association, who shall have taken the prescribed oath to sell goods at established prices, in the application for membership hereinafter named.

No person shall become a member of the Guaranty Association who is not a regular registered pharmacist, except in States which have no pharmacy laws, in which case all persons having an established retail drug trade, at except department stores, must, besides taking the prescribed oath, have the endorsement of one or more wholesale druggists who are members of this Association.

In cases of two or more persons constituting a firm, each individual of said firm must sign application under oath, and labels will be issued under firm name and number.

The National Association shall issue all membership certificates and Guaranty Labels, and the same shall not be transferable.

Membership certificates shall be made in duplicate, one for the retailer or wholesaler, and the other to be placed on file in the offices of the National Association or in main office of State Association acting under the authority of National Association.

Each membership certificate shall be numbered consecutively as the applications are received by the National Association, said certificate and labels issued thereon to be of the same number and recorded under the same firm and number.

All applications for membership must be accompanied by money sufficient to cover the expense of printing labels, etc., as hereinafter named by the National Association.

The said Association shall also establish a uniform rate for labels, not to exceed the actual cost for printing and engraving and maintaining officers in charge.

No retail dealer shall be allowed to use Guaranty Label until bottle or package is sold, when each and every bottle or package sold shall be labeled with the label containing the retail dealer's name and number thereon.

Wholesale druggists will be required to become members, first, using same blank and oath as retailers, and manufacturers will sell to no firm not a member of this Association.

Manufacturers will also have a private number for each wholesale firm, and will stamp or print said private number on each and every bottle or package sold to wholesale members of this Association, which will preclude the use of Guaranty Labels by wholesalers.

The form of application for membership shall contain the following specifications:

First. To sell only at the established wholesale price.

Second. To sell only at the established retail price.

Third. To sell at wholesale to no one who is not a member of this Association.

Fourth. To sell to no department stores or any person or firm known to be a cutter.

Fifth. To not allow any clerk or member of the firm, or any person connected or disconnected with the firm, to sell or trade otherwise than as stated above, or sell, trade, or give away Guaranty Labels, under any conditions whatever, nor to allow the firm name to be used for the same purpose.

Sixth. To report any violations of the above to the National or State Associations.

Seventh. To give no rebate.

Eighth. To place a National Guaranty Label on each and every bottle or package, represented in the National Manufacturers' Association, when said bottle or package is sold.

Ninth. To forfeit and return all labels, membership certificates and papers belonging to said National Guaranty Association for any and all violations of this plan.

The above to be subscribed and sworn to before a Notary Public, with two reputable citizens as witnesses.

Applause.

After Mr. Sourwine had finished the convention went into immediate discussion over Mr. Sourwine's plan, Mr. C. N. Anderson picking out the important points which it was feared the Association or members present did not clearly comprehend in a single reading of Mr. Sourwine's idea.

Mr. Anderson—"I move that Mr. Sourwine's plan, as read, also the remarks he made, or read, as a preface to his plan, be fully endorsed by this convention, and that same plans and remarks be published in the proceedings of this meeting."

Adopted unanimously amid great applause.

Mr. Schumacher—"I move that we lay Mr. Sourwine's paper on the table and proceed to elect officers."

Carried.

President—"As the next thing in the order of business is the election of officers, I will appoint as tellers Mr. W. D. Church and Mr. Earl Allen to prepare and collect the ballots."

The election of officers resulted in the following officers being elected:

President—A. H. Webber.

First Vice-President—John J. Sourwine.

Second Vice-President—W. R. Cutler.

Third Vice-President—C. N. Anderson.

Secretary—Charles F. Mann.

Treasurer—John D. Muir.

Executive Committee—A. B. Stevens, A. B. Schumacker, H. G. Coleman, E. E. Calkins, W. S. Winegar.

After the election of officers, a motion by Mr. Schumacher to adjourn was carried.

FOURTH SESSION.

The fourth session was called to order Wednesday evening at 7:30 o'clock.

President—"The first thing on the programme this evening is the report of the Executive Committee. We will now listen to that report."

REPORT OF EXECUTIVE COMMITTEE.

Your committee beg leave to report that we have held one meeting during the year, at Grand Rapids, June, 1897.

There were present at this meeting President Phillips, H. G. Coleman, A. H. Webber and B. Schrouder, holding F. W. R. Perry's proxy.

The matter of change of place for holding this meeting came up for consideration, it having been found necessary, for certain reasons, to change the place of meeting from Lansing to some other favorable locality, and as your committee had an urgent invitation from the Grand Ledge druggists, and its location being central and near the locality decided on by the Association, we deemed it advisable to make the change.

The following special committees were appointed: Reception, Prizes and Entertainment.

A. B. Schumacker was chosen as local Secretary.

We have examined the report of the Treasurer, and found same correct. We found the Secretary's account not quite as lucid as we could wish, owing to the practice of receiving goods

in part payment for advertisements in proceedings and announcements; also to treating these accounts as separate from Association accounts. We most earnestly recommend that in the future the Secretary be instructed to carefully observe the duties of the Secretary as laid down in the Constitution, Article 5, Section 2. Also that in the future the Secretary's report include an itemized account of all receipts and disbursements in connection with the announcements and proceedings.

We further suggest that in accordance with a provision in Section 3, Article 5, of the Constitution, the Secretary and Treasurer both file a sufficient bond.

Respectfully,

A. H. WEBBER,
H. G. COLEMAN,
A. B. STEVENS,
F. W. R. PERRY,

Committee.

President—"Gentlemen, you have heard the report, what is your pleasure regarding the same?"

Mr. Anderson—"I move that the report be accepted."

(Not supported.)

Mr. Parkill—"Concerning this matter of publishing the proceedings, I am inclined to think the Secretary is put to a great deal of trouble in getting out the proceedings. This matter, I believe, should be done by an editor, elected at each annual meeting for the purpose, but by common consent it seems that for a number of years past the Secretary has been obliged to do this work himself and accept what goods and money he could get over and above the cost of issuing and mailing the proceedings as a part of his salary."

Prof. Stevens—"I do not think the Executive Committee meant to find any fault with the work as done by Secretary Schrouder, but the committee found trouble in doing its duty in auditing the accounts, because the Secretary accepted goods in place of cash for the advertisements, and as a consequence was obliged to estimate the profits instead of accurately detailing them."

Mr. Anderson—"It seems to me a very simple matter, if the Secretary is willing to take it on his hands to edit and publish the proceedings at his own time and expense and accept the profits on same as part of his salary, the Association ought to be glad to accept the situation; but as I look at it, the question is now, not what has been done in the past, but what are the future duties of the Secretary?"

Secretary—"I think Mr. Anderson and Mr. Parkill have summed up the situation quite right. If the Secretary does not get the profits of the proceedings and announcements, as the

membership now is and with the amount of dues now coming in, he would not get enough funds on hand to defray the current expenses of the Association and keep up his salary. I know that in the two years I have been Secretary the entire profits of the proceedings and announcements I have credited to the Association as part of my salary, and even then with the amount of dues collected, I have been unable to get all of my salary after paying the other expenses of the Association."

Prof. Stevens—"I move that the present new Secretary, Mr. Mann, be elected editor of the proceedings of this meeting, to publish same, and that his salary for doing same and for performing the duties of Secretary be \$225 per year, providing there are funds enough in the treasury, after paying all other expenses incurred by the Association during the current year. This will conform with our By-laws as they now stand."

Adopted.

Mr. Anderson—"I now move that the report of the Executive Committee be accepted."

Carried.

President—"The next order of business will be the discussion of the report of the committee appointed to act on the report of the Committee on Trade Matters."

Mr. Main—"It seems to me that we have left one of the most important items of our meeting until the last. I think there has been some talk among the members of this Association to appoint a committee of three to confer with the members of the Board of Pharmacy on the matter relative to the readjustment of the present liquor law governing the sale of liquors by pharmacists."

Mr. Mann—"I move that the report of the special Committee on Trade Interests be taken from the table and placed under discussion."

Carried.

Mr. Mann—"I believe this idea of co-operative manufacturing is a splendid thing, if properly gone into."

Mr. Anderson—"Co-operative manufacturing should be one of the most important features of the pharmacists' life and business; but, as Mr. Mann says, it must be gone into properly. If we, as an association, indulge in co-operative manufacturing, we should start in on a small scale and work up. Co-operative manufacturing among pharmacists has been started in many places, and I would suggest that a committee be appointed to correspond with these institutions and get an outline of their business methods, and all other information they can glean on co-operative manufacturing. Institutions of this kind you will find in Ohio,

Indiana, Illinois and Canada, and probably many other States. The Chicago institution is an example of the results you get if you do not start right. I do not think that they went at it right over there. Here in Michigan we can show you a good example of co-operative manufacturing in a single line—that is the Pharmacists' Cigar Company, which has headquarters in Detroit."

Mr. Coleman—"At every meeting for some time past this subject of co-operative manufacturing has been an important point of discussion, but as a result of our procrastination nothing so far has been accomplished. At the Detroit meeting, held two years ago, after Mr. Anderson's long and intensely interesting paper had been read, and after so much enthusiasm and interest had been experienced by the leaders of the enterprise, it seemed very probable that a stock company for co-operative manufacturing could be easily organized right then and there. Accordingly a meeting was called for the same afternoon of the day when the discussion took place in the morning, and every member present was invited and urgently requested to be present, but when it came time to call the meeting I believe there were just three of us present; a mild shower had set in on that day, and it must have been the cause of dampening the ardent spirits of the would-be organizers of a co-operative manufacturing institution. A few months after there was some strong talk in Grand Rapids of organizing a company there for the same purpose, but I was afraid if a company was organized in Grand Rapids purely composed of pharmacists of that city, it would hinder the organization of a general state institution. I made a trip to Grand Rapids purposely to attend this meeting and endeavor to get them to wait in the matter until a state organization could be promoted. Then, later, there were meetings being held in Detroit, and it was expected one of the leaders in the Canadian company could be induced to come before them and give an outline of their already successful business plans. Since then I have heard nothing more in Michigan about co-operative manufacturing, with the exception of the Pharmacists' Cigar Company."

Mr. Anderson—"I must repeat again that the only way to get a successful institution organized is to start right here and now in this Association and organize on a conservative, small and business basis."

Mr. Webber—"I move that we appoint a committee right now to further the promotion of a co-operative manufacturing company among the members of our Association."

Carried.

President—"I appoint on that committee Messrs. Anderson, Coleman and Webber."

Mr. Perry—"I would like to see the second section of the report of the special committee appointed by the President to report on the report of the Trade Committee copied and one copy mailed to each pharmaceutical journal of this country, and will offer that as a motion, instructing the Secretary to do so."

Adopted.

Mr. Parkill—"Probably many of the members here have noticed for some time past the manner in which the newspapers have been publishing items such as 'get what you ask for' and other more slurring lines directly pointed to the legitimate retail pharmacist. I wish to say, and speak from experience, that if the retail druggist of any town or city would take it in their hands and upon themselves to call the attention of the editors of these papers to the injustice done to the retail merchant of their city whether he be a druggist, dry goods man or grocer, the editor or publisher of the paper would quickly see the injustice done by such an item, and if the merchants would further decline to use the columns of these papers for advertising purposes, these unkind and unworthy items would quickly disappear. As it is now, the editor of the paper overlooks them, he does not write them, for they are sent out by the different advertising agencies."

Mr. Webber then reads the third section of the report (in regard to legislation).

Prof. Stevens—"I would like to see that part of the report adopted, but if we adopt it, where is the money going to come from?"

Mr. Mann—"I would suggest that we raise the money right here among the members of the Association here now."

Mr. Gundrum—"I move that every member here be asked by the President at this time to go down into his pocket and put up one dollar. This money to be used for printing circulars and mailing one to each druggist in the state, soliciting a contribution of one dollar, to create a fund that will be used only for legislative purposes."

Adopted.

President—"It is now in order that every man present step to the desk of the Secretary and put up the dollar."

(A generous response to this call resulted in the collection of \$26, which Secretary Schrouder immediately turned over to Secretary-elect Chas. F. Mann, taking Mr. Mann's receipt therefor.)

Mr. Webber—"I now move that Secretary-elect Mann be instructed to visit every member who is at present in Grand

Ledge and try to solicit the sum of \$1 from each of them who have not already contributed."

Adopted.

Mr. Webber then read the fourth and last section of the report, which was adopted and ordered printed.

President—"The discussion of Mr. Sourwine's paper on the plan of how to stop cut rates is now in order."

Mr. Thompson—"I move that Mr. Sourwine's paper be now taken from the table for discussion and final disposal."

Adopted.

President—"Gentlemen, what is your pleasure in regard to this paper?"

Mr. Brown—"I would suggest that the plan of Mr. Sourwine's be read again, or else that Mr. Sourwine explain verbally the point which he wishes to bring out and the action he would like to have our association take regarding them."

Mr. Sourwine then reads his plan again and remarks: "You can readily see how well a guarantee label, which if adopted by this Association, all other associations and all manufacturers of proprietary articles would be advertised. There is no preparation on the market, there is no other article made in this country that would be advertised so well and become so well known as a guarantee stamp; it would then be no trick for the public to detect the genuine article from the imitation. The plan is a broad one, it is a good one, and if adopted, would be of benefit, mutually to the manufacturer and retailer."

Mr. Anderson—"I move that Mr. Sourwine's paper and plan be accepted and adopted by our Association."

Carried.

Mr. Schrouder—"I move that the National Wholesale Druggists' Association be informed of the action just taken by the Michigan State Pharmaceutical Association."

Adopted.

Mr. Church—"Before we go any further with this plan, I wish to say that I was instrumental in bringing to this association Mr. Sourwine to present his plans for discussion, approval and adoption. Mr. Sourwine came and was glad to be able to do what he could to advance the interest of his fellow pharmacists. Now, I wish to call your attention to the fact, that when sending a delegate to the National Wholesale Druggists' Association, as provided for in our by-laws, we should not forget Mr. Sourwine. He should be asked to attend the N. W. D. A. meeting and lay his plans before them, and I recommend his appointment as a delegate, hoping that you will see the advisability of doing so."

Mr. Coleman—"There are not enough funds in the treasury of our association to pay the expenses of a delegate to that meeting. I for one am in favor of sending Mr. Sourwine as a delegate, but I do not think it would be right to call on the members present for another dollar so soon after creating that legislative fund."

Mr. Church—"Let us solicit it from the druggists; I do not think I would have a bit of trouble in raising \$15 in Grand Rapids alone to go toward a \$50 fund for defraying Mr. Sourwine's expenses."

Mr. Sourwine—"I do not want the association to think that I am here for the purpose of getting you to defray my expenses to any place, or for the purpose of getting the appointment as a delegate to any meeting. I came to this meeting and came as long a distance as any one who is here and I came for the sole purpose of doing what good I could for my brothers in this association and the legitimate pharmacists in general."

Applause.

Mr. Parkill—"I move that Mr. Church be appointed a committee of one for the purpose of soliciting a fund of \$50 from the retail druggists of this state to defray Mr. Sourwine's expenses as a delegate of this Association to the next meeting of the National Wholesale Druggists' Association."

Carried.

Mr. Westerfelt—"It will be my pleasure, with the permission of this Association, to present Mr. Sourwine's plan, as adopted, before the next meeting of the Indiana Pharmaceutical Association. I have many friends in that association and am sure they will give the matter a respectful hearing."

Mr. Anderson—"I also wish to say it will be my pleasure to present Mr. Sourwine's plan before the next meeting or before the committees having in charge such subjects, of the American Pharmaceutical Association, if I may have the honor of having a copy of the plans."

Mr. Sourwine—"As soon as I get back to Escanaba, I will have 1,000 copies of this plan printed, and will be glad to furnish them gratis to everyone who cares for one."

President—"Dr. Prescott is ready to present his resolution to the Association."

Dr. Prescott—"In regard to adulteration I have prepared the following resolution:

Whereas, The Michigan State Pharmacy Law, in Section 11, provides for legal procedure in cases of adulteration of medicines, and

Whereas, This provision constitutes the Board of Pharmacy as state officers for procedure against adulteration of medicines, therefore

Resolved, That this Association requests the Board of Pharmacy to take into immediate consideration their duty in the execution of Section 11 of the Pharmacy Law, and that we pledge to the Board our moral support toward a reasonable policy in faithful legal measures to preserve the true standard of medicines in this state.

Mr. Thompson—"I move that this resolution be adopted and printed in the proceedings."

Carried.

President—"If we have time before the adjournment of this session, Prof. Stevens has a paper on Chlorinated Lime, to which we might listen. We will listen to his paper."

CALIX CHLORATA.

BY A. B. STEVENS.

Chlorinated Lime cannot be advantageously prepared by either the retail or manufacturing pharmacist.

It is manufactured in enormous quantities by treating freshly slaked lime with chlorine gas, which combines to form calcium chloride and hydrochlorite. Nearly all the chlorinated lime is imported from England and Scotland. It comes in casks containing 800 pounds or more. These are frequently divided into kegs or barrels and sent out to consumers, or it may be transferred to quarter, half or pound packages. Chlorinated lime, unless sealed and kept in a cool, dry place, constantly loses chlorine. As often as it is transferred from one container to another there occurs a loss of chlorine; by the time it reaches the small consumer it can not be expected to stand the highest test. Yet there is no excuse for the deplorable condition of the chlorinated lime found in the market at the present time. Dr. Squibb¹ has shown that chlorinated lime put up in amber bottles, wrapped in paper, kept without loss from December to March, but during the next ten months lost 8 per cent, and in sixteen months lost 9.5 per cent.

When chlorinated lime is put up in packages, the label should bear the date of packing, also the percent of chlorine available at that time. The U. S. Pharmacopoeia very justly requires that it should be of a definite strength and furnishes an easy method of estimation. It is both interesting and instructive to review some of the results of estimations made during the past ten years and compare them with results obtained at the present time.

The Pharmacopoeia of 1880 states that chlorinated lime should contain at least 25 per cent of available chlorine. Dr. Squibb in 1885,² referring to the above requirement, writes as follows: "This standard adopted thirty-five years ago has been too low for twenty years past. The standard strength of the British manufacturers has long been 32 per cent of available chlorine.

and it would be difficult to find in first hands any below 30 per cent, while 35 to 37 per cent is always available and 38 to 40 per cent are not very uncommon."

H. M. Schroeter in 1889,³ gave the results of the estimation of eighteen samples with a maximum strength of 37.84 per cent, minimum 22.63 per cent, average 29.83 per cent. Only three specimens were below the standard of 1880, while four were above our present standard. Of the eighteen samples, eight were in bulk, with an average of 31.39 per cent. The remainder were in packages with an average of 28.58 per cent strength.

The Pharmacopoeia of 1890 increased the standard of strength from 25 to 35 per cent. In 1892 Dr. Squibb examined eight samples obtained from retail houses, each specimen with a single exception, being enclosed in metal or pasteboard boxes. Maximum 36.4 per cent, minimum 18.2 per cent, average 28.65 per cent. Only two of the samples would meet the requirements of the U. S. P. With one exception all were above the standard of 1880.

In 1895 C. H. Wall⁴ reported the results of nine estimations; maximum strength 38.36 per cent; minimum 6.2 per cent; average 25.2 per cent. Only two were up to the U. S. P. requirement. Three were in bulk with an average of 35.25 per cent, the remainder were in pasteboard boxes with an average of 20.34 per cent, after successive estimations. J. U. Lloyd⁵ reported in October, 1895, an average of 20.51 per cent and in May, 1896, an average of 31.47 per cent. Since last November the writer has examined 32 samples with the following results:

No. 1.....	8.0%	No. 15.....	20.2%
" 2.....	2.0%	" 16.....	24.1%
" 3.....	14.7%	" 17.....	14.1%
" 4.....	7.7%	" 18.....	23.8%
" 5.....	12.0%	" 19.....	20.5%
" 6.....	5.8%	" 20.....	23.8%
" 7.....	17.6%	" 21.....	26.8%
" 8.....	1.8%	" 22.....	27.3%
" 9.....	7.6%	" 23.....	31.0%
" 10.....	13.5%	" 24.....	16.5%
" 11.....	14.3%	" 25.....	28.9%
" 12.....	23.6%	" 26.....	19.3%
" 13.....	31.3%	" 27.....	18.9%
" 14.....	26.4%	" 28.....	27.9%

The first ten samples packed in this State furnished an average of 9.07 per cent. The first eight were labeled "high test." Just why they were so labeled we are unable to understand. All were in metal cans.

Nos. 11 to 15, inclusive, were of one brand and gave an average of 26.16 per cent. The labels on Nos. 11, 12 and 13 furnished the following interesting information: "This being put up in airtight metallic cans, the contents will keep for any length of time." If this statement were true, we can only infer that the packers must have put up an inferior article, as every sample was below the U. S. P. requirement. Nos. 16 to 22, inclusive, were of one brand and all in pasteboard boxes, with an average of 22.9 per cent. The remainder were in bulk, with an average of 23.75 per

cent. Nos. 6, 8, 14, 15, 21 and 22 were obtained from wholesale houses; No. 7 direct from the packer. The remainder from retail received and tested at once. No. 23 was from a jar which had been opened several months, but kept in a cool place closely covered. No. 24 was the last of a 100-pound keg. No. 28 was from a barrel which had been opened one month.

The following four estimations were not included in the above report.

No. 29. One-quarter pound metal can, wet; 0.6 per cent.

No. 30. This sample had been in stock three years and kept in a loosely covered jar. Sometime previous to estimation it had been transferred to a sealed jar. It was represented as being a very good sample because the odor from the jar was very strong, but on estimation yielded only 1.7 per cent.

No. 31. Was the last of a barrel which had been in stock one year, dry; yielded 0.4 per cent.

No. 32. Had been transferred from a barrel to jars, covered but not sealed; very damp. Yield, 0.7 per cent.

Many erroneously judge the quality of chlorinated lime by the odor, which is very misleading. Several students depending upon the odor as an indication of quality rejected a number of packages containing 12 and 14 per cent, and accepted partially filled jar, the contents of which contained less than 2 per cent. A number of the poorest samples examined by the writer gave a very strong odor of chlorine. This is easily accounted for when we reflect that it is the decomposed hypochlorite or free chlorine that produces the odor and not that in combination. A very little decomposed hypochlorite is sufficient to fill a large jar with a suffocating odor of chlorine. No reliance can be placed upon anything short of a chemical estimation. Wholesale and retail houses alike should not purchase more than can be disposed of in a few months, should insist on having a standard article.

As it is essential to the preservation of life and the progress of the arts that all drugs and chemicals should be not only of the purest character but of the required strength, it becomes the chemist and the pharmacist as guardians of the public welfare to decrease as far as possible the sale of inferior articles. I would that our Association might have a hand in this good work. Let us begin with chlorinated lime, an article valuable as a sanitary agent and useful in the manufacturing arts. To assist in this improvement I will, until our next meeting, analyze and report, free of charge, upon every original package sent me by any brother pharmacist in our State. Let us refuse to handle any brands falling below the standard strength and soon a better brand of chlorinated lime will be upon the market. This will be an advantage both to the health and the commercial interests of the State.

References:

1. Ephemeris, Vol. 3, p. 1329.
2. Ephemeris, Vol. 2, p. 806.
3. Am. Jour. of Pharm. 1889, p. 13.
4. Ephemeris, Vol. 3, p. 1330.
5. Am. Jour. Pharm. 1895, p. 206.
6. Am. Jour. Pharm. 1896, p. 303.

Applause.

Mr. Schrouder—"I move that we now adjourn until to-morrow morning at 8 o'clock."

Carried.

FIFTH SESSION.

The fifth and last session of the fifteenth annual meeting of the Michigan State Pharmaceutical Association was called to order Thursday morning at 8:15, President Phillips in the chair, Chas. F. Mann being appointed secretary pro tem.

President Phillips—"As this is my last appearance before you as President of this Association, I wish to thank you all for the many courtesies shown and for the excellent support the various committees and officers have given me during my term of office."

Applause.

"I will now introduce to you President-elect Webber."

Applause.

"Mr. President and gentlemen of the Michigan State Pharmaceutical Association:

"My education as a public speaker has been sadly neglected; as a matter of fact, I do not remember that I ever made a public speech in my life. Now with this apology on my part I do not believe that you will expect extended and eloquent remarks from me at this time. I only want to say that I fully appreciate and am very grateful to you for the honor that you have conferred upon me by making me President of this Association for the ensuing year, coming, as it does, unsolicited and without effort of any kind on my part, makes it all the more gratifying to me I can assure you. I must say, when I look about me and see so many representative druggists of the State, those who have been closely identified with this Association in all the years of its past and from this long experience it would seem they would naturally be better qualified for the position than I am; when I think of this, I repeat, I cannot but feel you might have made a better selection, but this responsibility must rest on you as an association. Personally, I am desirous of seeing the cause of pharmacy raised to a higher standard, separated from other lines of trade and placed on a more truly scientific basis. I pledge to you whatever abilities I have, to bring about this much desired reform. I most earnestly solicit your hearty co-operation in this work. Again I thank you for the honor, and trust that I shall see you all, with many more, at our next meeting at Port Huron."

Applause.

Mr. Perry—"I move that Mr. Coleman's resolution regarding the metric system be adopted by our Association."

Carried.

Mr. Calkins—"I wish to offer as a motion that Prof. Steven's paper on Chlorinated Lime be taken from the table, accepted and ordered printed in our proceedings."

Adopted.

Mr. Phillips—"I move that the papers prepared by Mr. C. C. Sherrard which have not yet been submitted in this convention on account of some delay, be accepted and ordered printed in our proceedings."

Adopted.

Mr. Mann—"I move that Mr. Coleman be allowed to withdraw from the special committee on co-operative manufacturing, appointed by President Phillips, inasmuch as it is his wish."

Carried.

Mr. Anderson—"I will offer as a motion that Mr. F. A. Thompson be appointed on that committee in the place of Mr. H. G. Coleman, resigned."

Carried.

Mr. Thompson—"There are some prizes to be awarded during this convention; I move that the disposal of same be left in the hands of the Committee on Prizes, which committee is composed of F. W. R. Perry, A. B. Schumacker and Dr. N. C. Goodwin, and the decision of the committee be printed in the proceedings."

Carried.

The following are the two winners of cash prizes, as awarded by the committee:

For the best paper on pharmacy, prize \$5 in gold, awarded to Prof. A. B. Stevens.

For the best paper of practical interest to retail druggists, prize \$5 in currency, awarded to John J. Sourwine.

President—"It is now in order that we decide on a place for holding our next annual convention. In this matter I wish to urge upon the Association to adopt some permanent place for holding our meetings."

Then followed a general discussion on the several invitations received for holding the next annual meeting. Grand Ledge, Lansing, St. Joseph and Port Huron being the places from which to choose. Mr. A. B. Schumacker, of Grand Ledge, urging the Association to select Grand Ledge as a permanent place to hold the conventions. Mr. Jenks, of Jackson, was also much in favor of Grand Ledge; but it was finally decided, on motion of Mr. Anderson, to accept the druggists's invitation of Port Huron and accordingly the next annual meeting will be held in Port Huron.

Mr. Perry—"I will offer as a motion that our next meeting be held beginning the first Tuesday after the first Monday in August, 1898, providing this date does not conflict with the annual meeting of the American Pharmaceutical Association."

Carried.

Mr. Anderson—"I move that a hearty vote of thanks be extended to the druggists and citizens of Grand Ledge for the genuine hospitality shown during this convention. They have certainly used us right."

Carried.

Mr. Gundrum—"I move that a vote of thanks be extended by our Association to the Pabst Brewing Company, of Milwaukee, for taking such an extensive interest in the cut rate question, and that the Secretary be instructed to advise them of this action."

Carried.

Mr. Phillips—"I will offer as a motion, that Mr. Ed. J. Rodgers, of Port Huron, be elected local Secretary for our next annual meeting."

Carried.

Mr. Phillips—"I move that we extend a vote of thanks to Mr. A. B. Schumacker for so ably performing the duties of local Secretary for this meeting."

Carried.

Mr. Phillips—"I move that we adjourn until our next annual meeting."

Carried.

DIASTASIC FERMENTS.

BY C. C. SHERRARD AND J. L. TEGARDEN.

Among the most important modern therapeutic agents are digestive ferments, such as pancreatic diastase, malt diastase, pancreatin, myrosin, pepsin, etc.

Digestive ferments have been studied quite extensively from a physiological standpoint and we have exhaustive reports of results obtained by some of the most able living physiologists. The fact that diastasic ferments are demanding so much attention led us to inquire into their intrinsic and comparative amylolytic value. Knowing that it is a part of our province to comment and pass judgment upon the various products with which the pharmacist and physician are conjointly interested, we have, accordingly, made a series of laboratory experiments, having in view, at the same time, the correctness and fallacies of the present methods now in vogue for assaying amylolytic ferments.

From the first we have questioned the published methods for estimating the absolute energy of these ferments and our recent work has demonstrated the validity of the conjecture.

Laboratory experiments may not show conclusively the real therapeutic value of a ferment, for there may be other influences in operation in the alimentary canal at the same time which intervene to prevent inaction of an amylolytic ferment even in acid or strongly alkaline media. In fact, it may be admitted to be absolutely impossible through chemical or mechanical means to demonstrate the exact and peculiar conduct of these because of the impossibility of duplicating the many intricate conditions of the alimentary canal or natural digestive process. In the natural process continual absorption, dialysis, assimilation, etc., are in progress, therefore, when one condition unfavorable to the ferment is operating another equally favorable may be constantly restoring the equilibrium, and these conditions would be impossible to duplicate outside of the animal organism. Removing the ferments by mechanical means would not solve the mystery, for as soon as the ferment or ferments are removed their peculiar environments are destroyed and consequently results obtained by operating upon them would not be identical to those in progress in the alimentary canal. But in many cases valuable information may be obtained through chemical and physiological experiments and demonstrations in the laboratory.

In the laboratory the absolute energy of a diastase is shown by the amount of starch it will completely transform in a given length of time. For quantitative work one-half to one hour is preferable to the short two to ten minute tests, and solutions should be of such strength that the diastase will complete its work within those limits since at about the end of that time it is claimed the fluids of the stomach become acid rendering diastase inert.

A starch mucilage is completely transformed when any amount of compound solution of iodine added to any amount of the digested solution will not produce a blue color or any of the violet and pink colors characteristic of starch and the erythro-

dextrines. The popular test known as Junck's* test, is as follows:

"Twelve uniform two-ounce vials, each filled with distilled water, to which two drops of iodine solution, prepared from two grams of iodine, four grams of potassium iodide, and 250 grams of water have been added.

"Ten grams of starch are stirred with thirty grams of water and poured into 125 or 150 grams of boiling water. This mixture is stirred and boiled for some time. The mucilage is allowed to cool to, and is then kept, at a temperature of 100° F. Ten grams of extract of malt, dissolved in 10 c. c. of water, are then stirred into the mucilage, the time being accurately noted. After one minute a good extract will have converted the thick mucilage into a thin liquid. As soon as this change has taken place it is necessary to examine the progress of the conversion of starch into soluble starch, dextrin, and sugar, and at the end of every minute by the following method:

"After the expiration of the first minute transfer two drops, by means of a glass rod, into one of the two-ounce bottles. The bottle is shaken and placed near a window. At the end of every minute repeat this manipulation with a new bottle until the coloration is no longer produced. The time necessary for effecting this change gives the indication as to the amount of diastase present. Undecomposed starch mucilage gives a greenish-blue color and after standing for some time a blue precipitate. Soluble starch, the first product of change, yields, with iodine, a dark blue solution without a precipitate. If the amount of soluble starch equals that of the dextrin and sugar the color of the solution will be purple. As the soluble starch disappears the solution will be of a decided red color if dextrin predominates, or faintly red if the sugar be in excess, and when starch and most of the dextrin have been converted into sugar, the liquid will be nearly or entirely colorless."

†Roberts' test is practically the same as Junck's with the exception of ascertaining the end reaction. Instead of adding two drops of the dilute digested starch solution to two ounces of water containing only two drops of the iodine solution, he adds to one drop of the enzymosing liquid, on a white slab or plate, one drop of his iodine solution. It may be observed here that the strength of the iodine solution in the final test is about .0018 per cent for Junck's and about .025 per cent for Roberts', while in our own test we employ a solution containing about 2 per cent of iodine.

Sherrard's test for end reaction, so-called, is as follows:

Remove 4 or 5 c. c. of the digesting solution to a small test tube and add, say three drops of compound solution of iodine, U. S. P., diluted one in six. This is compared with the same volume of water in another test tube of equal diameter, to which also three drops of the one in six compound solution of iodine has been added.

When the first two tests mentioned indicate a complete conversion of the starch, the latter test still shows in many cases a superabundance of erythrodextrines and with some diastases unconverted starch.

From an absolutely achromic standpoint the first two tests are very unsatisfactory because the iodine solution is too weak

*Am. Jr. Pharm., 1883, p. 289; 1885, p. 18.

†Digestion and Diet, Sir William Roberts, M. D., F. R. S., 1891.

and the amount of digested starch solution used is not sufficient to show the presence of starch when it is there in abundance. Roberts' test is considerably better than Junck's, but subject to the same criticism. Even in our own test the achromatic point is not sufficiently defined to be satisfactory from a scientific standpoint.

We wish also to call attention to the final readings in applying the color test by these iodine solutions. There is such a gradual blending of colors from blue to violet, purple, pink, red, and brown, down to the diluted iodine color itself, that it is next to impossible to find two persons, making a series of the same tests, at different times and places, who will decide upon the same strength because of this gradual blending or shading of colors. There is no argument necessary to show the fallacy of these popular quantitative tests for diastases. Only those who have encountered the many perplexities entering into such tests can realize how difficult it is to arrive at satisfactory results. Dr. A. B. Prescott, years ago, did considerable work with such tests and did not arrive at any results absolutely definite and satisfactory. Granting, however, that there is such a thing as a definite end color reaction we believe the more concentrated iodine solution is the proper one to employ.

Junck's test has been variously modified by different experimenters, in most cases the time being limited to ten minutes. Vegetable and animal diastases do not act with the same degree of rapidity during the first ten minutes of the operation, hence the ten minute test is best suited for diastases made from the same source. If diastases from different sources are examined the time should be extended to about one hour. In any case, the rapidity with which diastases transform starch is so great that color tests cannot be made with fine degrees of accuracy, since in a few seconds of time a large amount of conversion has resulted. It is best, therefore, to establish a test with solutions sufficiently dilute to have the digestion complete in one hour. Such a test is especially recommended if the assay is to be made by an ordinary pharmacist or physician. Furthermore, the amount of iodine or digested starch solution to be added to the two-ounce bottle, as in Junck's test, should not be limited to two drops. In many cases where two drops of iodine and two drops of the digested starch solution produce no perceptible color either in the bottle or over a white background, a few drops more of either solution will produce decided colors indicating incomplete conversion. Such tests are misleading and do not indicate absolute energy. It is proper, therefore, to continue the digestion until an excess of either solution will not produce colors indicating erythrodextrines, and finally apply the Fehling test for sugar.

In comparing results by employing Junck's, Roberts' and our own test, we find that Roberts' test yields 2.5 times as much sugar as Junck's, and our own yields 4.54 times as much. In some cases color reactions at the end of ten minutes would indicate a greater activity for a certain diastase, but if the digestion was continued until conversion was complete this diastase was found to be inferior to others.

The following tabulated statement of a few out of hundreds of assays shows the incomplete results by the Junck and Roberts tests:

No.	PHYSICAL CHARACTERISTICS.			DIASTASIC STRENGTH CLAIMED.		DIASTASIC STRENGTH FOUND.						PROTEOLYTIC STRENGTH CLAIMED.		PROTEOLYTIC STRENGTH FOUND.	
	Description.	Solubility.	Hygroscopicity.	DIASTASIC STRENGTH CLAIMED.		JUNCK'S TEST.		ROBERTS' TEST.		SHERARD'S TEST.		PROTEOLYTIC STRENGTH CLAIMED.		PROTEOLYTIC STRENGTH FOUND.	
				Strength.	Time.	Strength.	Time.	Strength.	Time.	Strength.	Time.	Strength.	Time.		
1	{ Light yellow powd. }	Poor.	Considerable.	None.	1-30	10 min.	1-36	1 hr.	1-30	2½ hrs.	None.	.....	Coagulates on boiling in 10 min.	1-1200	1 hr.
2	{ White powd. }	Fair.	Slight.	"	1-2½	"	1-2½	1½ hrs.	1-2½	2¾ hrs.	"	.....	.....	1-300	1 hr.
3	{ Scale. }	Good.	None.	"	1-4	"	1-4	50 min.	1-4	2½ hrs.	"	.....	.....	1-400	2 hrs.
4	{ Yellow powd. }	Poor.	Considerable.	Indefinite.	1-3½	Failed.	1-3½	Failed.	1-3½	Failed.	U. S. P.	U. S. P.	.....	1-2000	45 min.
5	{ Light yellow powd. }	Poor.	"	"	1-8	10 min.	1-8	1½ hrs.	1-8	6 hrs.	.....	.....	.....	1-4000	40 min.
6	{ Yellowish-white powd. }	Poor.	"	None.	1-50	"	1-50	1 hr.	1-50	5 hrs.	U. S. P.	U. S. P.	.....	1-3000	35 min.
7	{ Light yellow powd. }	Poor.	"	"	1-50	"	1-50	"	1-50	4½ hrs.	"	.....	.....	1-3000	45 min.
8	{ White powd. }	Poor.	"	"	1-6½	"	1-6½	"	1-6½	4 hrs.	None.	.....	.....	1-1500	20 min.
9	{ Light yellow powd. }	Poor.	"	"	1-4 4-9	"	1-4 4-9	1½ hrs.	1-4 4-9	2½ hrs.	"	.....	.....	1-3000	35 min.
10	{ Brown-red powd. }	Good	Slight.	"	1-1½	Failed.	1-1½	Failed.	1-1½	Failed.	.....	.....	.....	1-150	1¾ hrs.
11	{ Light yellow powd. }	Fair.	Considerable.	.....	1-10	10 min.	1-10	1½ hrs.	1-10	2¾ hrs.	U. S. P.	U. S. P.	.....	1-5000	20 min.
12	{ Light yellow powd. }	Good.	Slight.	1-100	10 min.	1-20-75	1-45-75	1-45-75	1-45-75	1-45-75	None.	.....	.....	.....	.....
13	{ Yellowish-white powd. }	Fair.	"	None.	1-40	"	1-40	1 hr.	1-40	2½ hrs.	"	.....	.....	1-2400	40 min.
14	{ Brown-yellow powd. }	Fair.	"	"	1-20	"	1-20	"	1-20	2¾ hrs.	"	.....	.....	1-1412	45 min.
15	{ White powd. }	Good.	None.	"	1-1	"	1-1	Failed.	1-1	Failed.	"	.....	.....	.....	.....

SUMMARY OF DIASTASE ASSAYS.

STRENGTH.	No. 1.			No. 2.			No. 3.			No. 4.			No. 5.			No. 6.		
	Time			Time.			Time.			Time.			Time.			Time.		
	h.	m.	hr.	JUNCK'S TEST.	ROBERTS' TEST.	SHERARD'S TEST.	JUNCK'S TEST.	ROBERTS' TEST.	SHERARD'S TEST.	JUNCK'S TEST.	ROBERTS' TEST.	SHERARD'S TEST.	JUNCK'S TEST.	ROBERTS' TEST.	SHERARD'S TEST.	JUNCK'S TEST.	ROBERTS' TEST.	SHERARD'S TEST.
	hr.	1	1 1/4	hr.	1 1/4	hr.	hr.	2	hr.	m.	35	hr.	m.	10	hr.	m.	10	hr.
1-100.....	1 20	2 1/4	.....	m.	20	m.	m.	55	hr.	2 1/4	hr.	hr.	m.	18	m.	35	hr.	2 1/4
1-75.....	hr.	1	1 1/4	m.	10	m.	m.	45	hr.	1 1/4	hr.	hr.	m.	10	m.	30	hr.	1 1/4
1-50.....	hr.	1 1/4	1 1/4	m.	8	m.	m.	30	hr.	1 1/4	hr.	hr.	m.	4	m.	8	hr.	1
1-25.....	hr.	1 1/4	1 1/4	m.	6	m.	m.	4	hr.	1	hr.	hr.	m.	2	m.	3 1/4	m.	45
1-12 1/2.....	hr.	1 1/4	1 1/4	m.	1	m.	m.	1	hr.	1 1/2	hr.	hr.	m.	2	m.	3	m.	25
1-6 1/4.....	m.	4	1/4	m.	1	m.	m.	2	m.	1	m.	m.	m.	1	m.	1	m.	10
	.....	4	1/4	m.	1	m.	m.	15	m.	45	m.	m.	m.	10	m.	40	hr.	2

For those desiring to make comparative tests the following directions and tables are given:

A METHOD FOR QUALITATIVE ASSAYS AND COMPARATIVE STRENGTHS OF DIASTASES, PANCREATINES, MALT EXTRACTS, ETC.

1. Make a $\frac{1}{2}\%$ Diastase Solution.
2. Make a $\frac{1}{4}\%$ Starch Paste Solution.
3. Make an .8% Iodine Solution (Junck's Iodine Sol.).

To make No. 1 dissolve 1 Gm. (15.43 grains) of Diastase in 200 c c (6 fl. ozs. 6 drs. 10 m.) of water.

To make No. 2 dissolve $2\frac{1}{2}$ Gms. (38.58 grains) of starch (Bermuda Arrow Root) in 500 c c (1 pt. 7 drs. 25 m.) of water.

To make No. 3 dissolve 2 Gms. (30.86 grains) of Iodine and 4 Gms. (61.72 grains) of Potassium Iodide in 250 c c (8 fl. ozs. 3 drs. 42.5 m.) of water and add 2 drops to 2 fl. ozs. of water in a clear glass bottle when making each test.

Explanation:

1. 200 c c of No. 1=1 Gm. (15.43 grs.) of Diastase

1 c c	"	1=.005	"	(.07716 grs.)	"
.2 c c	"	1=.001	"	(.01543 grs.)	"
.3 c c	"	1=.0015	"	(.02315 grs.)	"
.4 c c	"	1=.002	"	(.03086 grs.)	"
.5 c c	"	1=.0025	"	(.03857 grs.)	"
.6 c c	"	1=.003	"	(.04629 grs.)	"
.7 c c	"	1=.0035	"	(.05401 grs.)	"
.8 c c	"	1=.004	"	(.06173 grs.)	"
1.5 c c	"	1=.0075	"	(.11574 grs.)	"
2.0 c c	"	1=.01	"	(.15432 grs.)	"
4.0 c c	"	1=.02	"	(.30864 grs.)	"
2. 500 c c of No. 2=2.5 Gms. (38.58 grs.) of starch

30 c c	"	2=.15	"	(2.314 grs.)	"
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3. Therefore—

(1)	4 c c	of No. 1	added to 30 c c	of No. 2	=a 1 to 7.5 test
(2)	2 c c	"	1	"	" 2=a 1 to 15 "
(3)	1.5 c c	"	1	"	" 2=a 1 to 20 "
(4)	1.0 c c	"	1	"	" 2=a 1 to 30 "
(5)	.8 c c	"	1	"	" 2=a 1 to 37½ "
(6)	.7 c c	"	1	"	" 2=a 1 to 42 6-7 "
(7)	.6 c c	"	1	"	" 2=a 1 to 50 "
(8)	.5 c c	"	1	"	" 2=a 1 to 60 "
(9)	.4 c c	"	1	"	" 2=a 1 to 75 "
(10)	.3 c c	"	1	"	" 2=a 1 to 100 "
(11)	.2 c c	"	1	"	" 2=a 1 to 150 "

These amounts of the two solutions, Nos. 1 and 2, are employed because larger amounts require more room and material than is really necessary.

Bring both solutions to 40° C. (104° F.) and maintain at that temperature during the assay process.

Add the Diastase solution to the starch solution from a graduated Burette or Pipette, and note the exact time when the ferment is added to the starch solution; tests should be made with the Iodine solution at short intervals.

Clean several, 12 or more, clear glass 2-oz. wide-mouth bottles and fill them with water. Add two drops of Iodine solution to each bottle, preferably only a few minutes at most prior to applying the test, because the Iodine rapidly undergoes a change when exposed to the air and light. Junck's Compound Iodine solution noted above, should either be made fresh each time, or else kept in an amber bottle carefully stoppered and wrapped with dark paper and kept in a dark cool place.

If Malt Extract or very weak Diastase ferments are being tested, solution No. 1 should be made by using 5 to 10 Gms. of the ferment instead of 1 Gm., as directed above.

In case Essence of Diastase or Pancreatin or other solutions are being tested, about 10 or 15 c c should be accurately measured and diluted to a definite volume, say 100 c c. With such degrees of dilution, from 2 to 8 or 10 c c are required to convert the starch in the 30 c c of starch solution. The amount of diluted ferment solution will depend, of course, upon the activity of the original product.

Application of the test—Directions for details:

1. DIASTASE SOLUTION.

Weigh exactly 1 Gm. of Diastase and place it in 240 c c (8 fl. ozs.) bottle, pour in 120 c c (4 fl. ozs.) of water and agitate thoroughly by shaking vigorously; after about one hour add the other 80 c c (2½ fl. ozs.) of water and agitate again and let stand one-half hour. If there be a large amount of undissolved residue, filter and pass q. s. water through the filter to make 200 c. c. (6½ fl. ozs.).

2. STARCH PASTE SOLUTION.

Weigh out exactly 2½ Gms. of pure starch, preferably Bermuda Arrow Root, place in a graduate or beaker and pour in about 120 c c (4 fl. ozs.) of water. Stir thoroughly. Heat about 240 c c (8 fl. ozs.) of water to brisk boiling and add gradually the moistened starch previously agitated, taking care to stir the boiling solution constantly to prevent lumping. Rinse out the beaker or graduate with a little water and transfer to the boiling solution. Continue the boiling for about five minutes or until all the starch granules are completely broken up. Remove from the fire and when sufficiently cool, transfer to a 500 c c cylinder or graduate, and dilute gradually with water to the required amount, agitating thoroughly. The finished mucilage should be smooth and free from lumps.

3. BATH.

A good bath may be made of a 2-gallon earthenware crock or a jar with perpendicular sides, placed upon a tripod over a Bunsen burner, and filled one-half full of water brought to a temperature of 40° C. (104° F.). The temperature of a bath of this kind can be regulated so that it will not vary one-half of a degree in 24 hours.

The crock is covered with a perforated cover which will admit one dozen large tubes and a thermometer. The holes for the tubes may be of such size as most suitable for the tubes at hand. The thermometer is fitted into a cork which fits one of the perforations, and is adjusted so that it will sink nearly to the bottom of the bath. 30 c c (1 fl. oz. of starch mucilage is put in each of the 12 tubes and 4 c c of the ferment solution added to tube No. 1; 2 c c to tube No. 2; $1\frac{1}{2}$ c c to tube No. 3, etc., etc. Note the exact time when the ferment is added. Each tube should have a closely-fitted stopper properly numbered. At the 10 minutes remove, by means of a small glass tube, a small amount of the solution in tube No. 1 and drop exactly two drops in the very dilute 2-oz. bottle Iodine solution and shake. Any color of blue, or intermediate erythrodextrine colors indicate incomplete conversion.

The two drops of Iodine when placed in the 2-oz. bottle should always be dropped from the same pipette, burette or dropper; likewise the two drops of digesting solution when placed in the 2-oz. bottle of dilute Iodine solution should be dropped from tubes of uniform size. The same dropper should not be used with two or more of the digesting tubes unless it is thoroughly rinsed on the inside after each single test.

Any difference in the size of drops of the Iodine solution, or the Digesting solution will make quite a difference in the end reaction when Junck's and similar tests are employed.

If careful attention is paid to all the details noted, exceedingly satisfactory results may be secured in making comparisons of the relative value of different diastasic ferments.

We wish to call attention to the final reading in applying the test to these Iodine solutions; after dropping in the two drops of Digesting solution, comparison of color should be made with one of the 2-oz. bottles containing simply two drops of the Iodine solution. Any marked difference of color when both bottles are placed side by side on a sheet of white paper indicates failure.

While Junck's method is far from an ideal one and open to many criticisms, it will answer fairly well for approximate comparative purposes.

CONSTITUTION AND BY-LAWS.

Adopted at Petoskey, Michigan, July 13, 1887.

PREAMBLE.

Whereas, Organization, concert of action, and comparison of ideas are necessary to the advancement of any cause, and believing that a State Pharmaceutical Association will accomplish these objects: therefore

Resolved, That we, druggists of the State of Michigan, whose names are hereunto attached, in compliance with an act entitled, An Act to Organize the Reputable Pharmacists of the State of Michigan into an Association, to be known as the Michigan Pharmaceutical Association, approved April, 1887, do hereby organize ourselves into such Association, and adopt the following Constitution and By-Laws:

ARTICLE I.

This Association shall be called the Michigan State Pharmaceutical Association.

ARTICLE II.

The object of this Association shall be to unite the reputable pharmacists and druggists of this State, to improve the science and art of pharmacy, to elevate its standard, and ultimately, to restrict the practice of pharmacy to properly qualified pharmacists, and to promote by all legitimate means the business interests of its members.

ARTICLE III.

MEMBERSHIP.

Every pharmacist of good moral and professional standing, whether in business on his own account or employed by another, and teachers of pharmacy, materia medica, chemistry and botany, who may be specially interested in pharmacy, shall be eligible to membership.

ARTICLE IV.

OFFICERS.

The officers of this Association shall be a President, three Vice-Presidents, a Secretary, an Assistant Secretary, to be selected from the place of next meeting, a Treasurer, and an Executive Committee of five members, all of whom shall be elected by ballot at the third sitting of the regular annual meeting of the Association, and to serve until their successors are elected.

There shall also be elected a Committee on Trade Interests of seven members, who shall serve three years or until their successors are elected. Three members shall be elected in 1896, two in 1897, two in 1898, and so on in rotation.*

ARTICLE V.

DUTIES OF OFFICERS.

Section 1. The President, or in his absence or inability to serve, the Vice-Presidents in their order, shall preside at all meetings of the Association, until the close of such meetings; call special meetings at the written request of twenty-five members; fill all vacancies that may occur in the offices of the Association between the annual meetings; shall present at each meeting a report of the Association, and perform such other duties as pertain to the office.

Sec. 2. The Secretary shall keep a record of all the proceedings of the Association. He shall keep a roll of the names of the members, with their residence, date of admission, and any subsequent changes. He shall read all communications, conduct all correspondence of the Association, notify all members four weeks in advance of each annual meeting, at each annual meeting render a report of the duties performed by him since the last annual meeting, and in conjunction with the Executive Committee, shall superintend such publications as the Association shall direct. He shall notify members of their election; also notify members of committees of their appointment and election, and furnish each member of the committees with the names of their associates on said committees. He shall receive and collect all moneys for dues, and from all other sources, giving receipts for the various amounts, keep a correct account thereof, and pay the same to the Treasurer, taking his receipt therefor. He shall give a sufficient bond, subject to the approval of the committee. He shall file a copy of the proceedings of each annual meeting in the office of the State Board of Health, and the Secretary of State, and shall keep at least three copies in his own office.

Sec. 3. The Treasurer shall have charge of all the funds of the Association, for which he shall be personally responsible, pay all orders of the Secretary when countersigned by the President, render a full report of his transactions at each annual meeting, and report the state of the treasury when called upon by the Executive Committee. He shall give a sufficient bond, subject to the approval of the Executive Committee.

Sec. 4. It shall be the duty of the Secretary and Treasurer to turn over to their successors, without unnecessary delay, all papers and property of the Association committed to their care.

Sec. 5. It shall be the duty of the Executive Committee to aid the local Secretary in making arrangements for the meetings of the Association, to investigate applications for membership, audit all bills against the Association, and attend to all business not otherwise assigned.

Sec. 6. The Committee on Trade Interests shall investigate all complaints regarding trade matters made by members of this Association and take such action thereon as they may deem

*As amended at the 1895 meeting.

proper, rendering comprehensive reports at each annual meeting of the Association. The Committee shall have authority to employ a Trade Secretary, fixing his compensation, if any, and the members of the Committee shall be reimbursed for actual traveling and hotel expenses incurred in attending the meetings of the Committee or in pursuing investigations authorized by the Committee.*

ARTICLE VI.

MEETINGS.

The annual meeting of this Association shall be at such time and place as the Association shall previously determine.

ARTICLE VII.

BY-LAWS.

This Association may establish for its future government and regulation, such By-laws, not in conflict with the Constitution, as may be deemed proper and desirable.

ARTICLE VIII.

AMENDMENTS.

Every proposition to alter or amend this Constitution shall be submitted in writing and received at an annual meeting, and may be voted for at the next annual meeting, when, upon receiving the votes of three-fourths of the members present, it shall become a part of this Constitution.

BY-LAWS.

ARTICLE I.

QUORUM.

Twelve members shall constitute a quorum.

ARTICLE II.

MEMBERSHIP.

The names of persons applying for membership, with their age, residence, present occupation, and length of experience in pharmacy, shall be presented in writing, signed by two members in good standing, to the Executive Committee, and if favorably acted upon by that committee, the candidate shall be considered elected. A vote of all the members of the Executive Committee shall be required for an election.

*As amended at the 1895 meeting.

ARTICLE III.

FEEs.

The initiation fee of this Association shall be one dollar. which fee shall accompany the application.

ARTICLE IV.

DUES.

Every member shall pay to the Secretary on or before the first day of January of each year the sum of one dollar. It shall be the duty of the Secretary to draw on all members when two years in arrears, previously sending notice of his intention to draw at a certain date. Any person neglecting to pay dues for three successive years shall forfeit membership. Dues paid by new members before an annual meeting shall apply on the present year. Those becoming members and paying dues after an annual meeting shall receive credit for the following year.

ARTICLE V.

CERTIFICATE OF MEMBERSHIP.

Each member of this Association may, if he desire, upon the payment of one dollar, receive a certificate of membership, which shall be issued by the Secretary, provided said member is not in arrears for dues.

ARTICLE VI.

COMMITTEES.

Section 1. The President shall, before the close of each annual meeting, appoint the following committees (of which he shall be an ex-officio member), each to consist of three members: Committee on Pharmacy and Queries; Committee on Legislation; Committee on Adulterations.

Sec. 2. The Committee on Pharmacy and Queries shall report annually respecting scientific progress, discoveries and investigations during the year, and near the close of each annual meeting a proper number of questions of scientific or practical interest, and shall secure the acceptance of as many of such questions of investigation as may be practicable, to be reported upon at the next annual meeting.

Sec. 3. The Committee on Legislation shall keep a record of, and compile for reference, the enactments of the different States regulating the practice of pharmacy and the sale of medicines. They shall report, at each annual meeting of the Association, what legislation on the subject has occurred during the year, and submit such recommendations with regard to legislation in this State as shall appear to them proper.

ARTICLE VII.

SUSPENSIONS—AMENDMENTS.

Section 1. These By-Laws shall not be suspended without the consent of two-thirds of the members present.

Sec. 2. Any amendment to these By-Laws must be made in

writing and read before the Association at one sitting, and laid over to a subsequent sitting, when, upon receiving the votes of two-thirds of the members present, it shall become a part of these By-Laws.

ARTICLE VIII.

DELEGATES.

Five delegates and five alternates shall be annually elected to attend the meeting of the American Pharmaceutical Association.

ARTICLE IX.

PROCEEDINGS.

The proceedings of the Association, and the roll of officers, committees, and members shall be published annually under the supervision of an editor, who shall be elected annually, and who shall be paid from the funds of the Association, and a copy of the proceedings shall be sent to each member of the Association less than two years in arrears.

ARTICLE X.

EXPULSION OF MEMBERS.

Any member or officer accused of violating the Constitution or By-Laws, or other improper conduct, may be expelled or removed from office by a two-thirds vote of all the members at a regular meeting. In every case definite charges must be preferred in writing, to which shall be affixed the names of not less than three members of the Association, and the Secretary shall send the accused person a copy of the charges, and notify him in writing, at least two weeks in advance, of the time when his case will come up for hearing, offering him an opportunity to be heard in his own defense.

ARTICLE XI.

EXHIBITS.

The Association invites manufacturers and others to exhibit at the annual meetings, crude drugs, chemicals, pharmaceutical preparations, and such objects as possess a general scientific or special pharmaceutical interest.

ARTICLE XII.

RULES OF ORDER—ORDER OF BUSINESS.

Section 1. The Rules of Order of this Association shall be those in common use in deliberative assemblies, and such special rules as may be adopted by the Association.

Sec. 2. The order of business shall be such as the Executive Committee shall prescribe.

LIST OF MEMBERS.

If you change your residence, if your name and address are incorrectly given in Membership Roll, or if you hear of the death of a fellow-member, please notify the Secretary at once.

Adams, H. M., Port Huron.....	1888
Akey, J. V., cor. Central and Vernon Aves., So., Los Angeles, Cal.	1885
Allen, Chalmers P., West Bay City.....	1891
Almendinger, C. G., Williams, Davis, Brooks & Co., Detroit..	1894
Amberg, Isaac, Battle Creek.....	1886
Anderson, C. N., 43 Champlain St., Detroit.....	1888
Anderson, Ellery, Midland.....	1884
Atchison, F. E., Gladwin.....	1888
Atkinson, Henry M., Harbor Springs.....	1894
Babbington, John, Corunna.....	1884
Bachman, M. H., Stanton.....	1883
Bailey, Dr. John R., Mackinac Island.....	1890
Bailey, M. G., Mackinaw Island.....	1888
Baker, H. G., T. H. Hinchman Sons & Co., Detroit.....	1888
Bannister, John L., 201 S. Washington St., Saginaw, E. S....	1890
Barber, M. A. Petoskey	1887
Barie, H. L., 535 Macomb St., Detroit.....	1887
Barnard, Wm. Dwight, 427 River St., Manistee.....	1891
Bassett, A., 105 Hancock Ave. E., Detroit.....	1884
Bassett, J. A., 201 N. Washington St., Ypsilanti.....	1885
Beach, L. F., Bay City.....	1884
Beacham C. B., Romeo.....	1884
Bell, John, Lexington.....	1888
Bennett, John S., Lansing.....	1897
Bertram, J. P., 13 Main St., Westphalia.....	1883
Bigelow, W. H., Corunna.....	1884
Blair, C. A., Morenci.....	1884
Blakeslee, L. G., Detroit.....	1885
Bliss, Lyman W., Saginaw.....	1890
Boden, Edwin T., 319 Washington St., West Bay City.....	1890
Bogart, Frank E., Farrand, Williams & Clark, Detroit.....	1890
Borradalle, Frederick H., Detroit.....	1892
Botsford, E. S., Dorr	1886
Bower, A. C., Lansing	1897
Bower, J. E., Crystal Falls.....	1887
Bower Jr., Reuben T., Petoskey.....	1891
Brackett, F. E., Cheboygan.....	1887
Bradshaw, John P. H., Davison.....	1894
Breitenbach, A. P., Champlain and Sheridan Sts., Detroit....	1889
Bristol, F. E., Lapeer.....	1884
Bristol, N. D., Lapeer.....	1884
Brooks, Alanson S., Williams, Davis, Brooks & Co., Detroit..	1890
Bross, C. M., Jerome.....	1889
Brown, D. D., 108 S. Burdick St., Kalamazoo.....	1885
Brown, H. J., Ann Arbor.....	1883

Brundage, F., Muskegon.....	1886
Bugbee, C. A., Traverse City.....	1885
Burdick, H. H., 611 E. Midland St., West Bay City.....	1884
Burley, David H., Almont.....	1890
Burwell, R. G., 2339 Gratiot Ave., Port Huron.....	1884
Cadlip, Samuel, Iron Mountain.....	1896
Cagwin, Joel E., 11 S. Story St., Boone, Iowa.....	1893
Caldwell, J. W., 242 Grand River Ave., Detroit.....	1888
Calkins, E. E., Ann Arbor.....	1884
Carney, M. S., Decatur.....	1885
Chamberlin, G. T., Hartford.....	1883
Chandler, C. A., Cambria.....	1884
Church, H. M., Holly.....	1883
Church, Wm. D., Parke, Davis & Co., Detroit.....	1889
Clarke, A. B., Gobleville.....	1889
Clark, A. G., White Cloud.....	1883
Clark, H. C., Farrand, Williams & Clark, Detroit.....	1888
Clark, J. K., Blissfield.....	1884
Clark, S. B., Flint.....	1890
Claxton, W. C., Calgary Alberta (Box 112), N. W. T., Canada.....	1885
Coe, Thomas D., Romeo.....	1884
Cohoe, Adolph, Capac.....	1890
Cole, V. W., Petoskey.....	1896
Coleman, Sheldon, 1017 Douglas Ave., Kalamazoo.....	1893
Coleman, H. G., Kalamazoo.....	1884
Colwell, Dr. C. B., Jackson.....	1886
Conrad, J. F., Otsego.....	1896
Cook, Charles E., 912 Van Buren St., Bay City.....	1884
Cooper, I. S., Cheboygan.....	1885
Cornell, Aaron, Elkton.....	1890
Cornell, David A., Copemish.....	1892
Cosford, Dr. J. W., Mancelona.....	1887
Crawford, J. B., Ithaca.....	1885
Cress, Edward A., Minden City.....	1890
Crispe, John, Plainwell.....	1886
Crowley, J. J., 421 Michigan Ave., Detroit.....	1884
Culver, Dr. R. W., South Haven.....	1886
Cummer, R. J., 176 Euclid Ave., Cleveland, O.....	1884
Curran, E. S., St. Joseph.....	1883
Currie, A. A., St. Clair.....	1885
Curtis, C. A., Petoskey.....	1885
Cutler, W. R., Ionia.....	1883
Darling, G. S., Tawas City.....	1888
Davis, George S., Parke, Davis & Co., Detroit.....	1888
Davis, James E., Williams, Davis, Brooks & Co., Detroit.....	1884
Dayton, A. J., 74 Wealthy Ave., Grand Rapids.....	1887
Dean, H. M., Niles.....	1887
Dendel, W. H., Hopkins Station.....	1892
Dennis, G. C., Rochester.....	1888
DePuy, C. E., Stockbridge.....	1888
Dewitt, P. A., Spring Lake.....	1888
Dillon, James E., East Tawas.....	1887
Dodd, I. Leroy H., Buchanan.....	1884
Dorman, Charles, Elkton.....	1890
Dorrance, A. A., Coldwater.....	1883
Doty, Wirt P., Detroit.....	1897

Dunlap, Thomas, South Lyon.....	1884
Dupont, William, 182 Michigan Ave., Detroit.....	1883
Dorr, F. W., 142 Twelfth St., Detroit.....	1895
Dunbar, W. L., Parma.....	1895
Eberbach, O., Ann Arbor.....	1883
Fairchild, H. B., Grand Rapids.....	1880
Farrand Jr., J. S., Detroit.....	1888
Fauckbner, Orin A., 429 E. Bridge St., Grand Rapids.....	1890
Fay, O. J., Carleton.....	1888
Fenton, George L., Kingsley.....	1885
Fildew, A. S., 21 Clinton Ave., St. Johns.....	1884
Fincher, F. W., Pentwater.....	1883
Fisk, C. A. E., Petoskey.....	1885
Foote, C. E., Foote & Jenks, Jackson.....	1886
Fordham, M., Elmira.....	1885
Fordham, W. W., Elmira.....	1884
Forsyth, Edward L., Kalamazoo.....	1891
French, C. S., Hillsdale.....	1888
Fritz, T. H., Cass City.....	1885
Fuqua, C. B., Paris.....	1891
Furniss, John C., Nashville.....	1891
Gardner, Grant G., North Star.....	1893
Gates, Dr. T. O., East Tawas.....	1884
Gerow, J. E., Ovid.....	1883
Gill, W. J., Beacon.....	1884
Gladwin, H. L., Merrill.....	1888
Glazier, F. P., Chelsea.....	1885
Gleason, E. G., Richmond.....	1884
Goldsmith, G. S., Manistee.....	1885
Goodrich, L. A., Hillsdale.....	1884
Goodwin, N. C., Eli Lilly & Co., Indianapolis, Ind.....	1896
Grandy, Francis, Fairfield.....	1885
Griffith, W. F., Howell.....	1883
Grossman, Wm., 1218 Court St., Saginaw, W. S.....	1890
Grunow, O. H., 182 Gratiot Ave., Detroit.....	1884
Gundrum, George, Ionia.....	1883
Hackett, P. E., Wolverine.....	1886
Haeussler, G. J., Manchester.....	1885
Haines, Edwin J., Duroy & Haines Co., Sandusky, O.....	1890
Hale, H. G., Nashville.....	1883
Hallock, D. S., 18th and Fort Sts., Detroit.....	1897
Hall, W. A., Greenville.....	1884
Hamilton, Jerome D., M. D., Paw Paw.....	1892
Hart, Austin P., Mulliken.....	1891
Harwood, G. M., Petoskey.....	1884
Harwood, Henry, Ishpeming.....	1885
Hayes, Newland, 313 Forest Ave. W., Detroit.....	1894
Hays, J. A. Ph. G., 147 S. 18th St., Pittsburgh, Pa.....	
Heffernan, Thomas, Baldwin.....	1895
Helm, Henry, Saginaw, E. S.....	1897
Hessler, Wm., M. D., 291 Jefferson Ave., Detroit.....	1883
Hessler, W. F., Rockford.....	1895
Hicks, Charles V., Oscoda.....	1891
Hicks, W. H., Big Rapids.....	1883
Hinchman, C. C., 76 Jefferson Ave., Detroit.....	1885
Hinchman, J. M., 76 Jefferson Ave., Detroit.....	1888

Hodges, F. A., Parma.....	1888
Hopkins, F. S., Benton Harbor.....	1888
Hopkins, I. F., Muskegon.....	1884
Hopper, Arthur G., Alpena.....	1896
Hubert, John H., 838 Mich Ave., Detroit.....	1890
Hueston, G. C., Northville, Box 17.....	1885
Hunt, A. O., St. Johns.....	1885
Hunt, Dewitt H., St. Johns.....	1888
Hurd, A. E., Davison.....	1884
Hutchins, Lee M., Williams, Davis, Brooks & Co., Detroit.....	1892
Hutchinson, Barzilla S., Lyons.....	1892
Hutton, R. J., 425 Antoine St., Detroit.....	1885
Hyde, A. O., Marshall.....	1883
Inglis, Frank, Detroit.....	1883
Ingram, F. F., Detroit.....	1891
Jack, G. T., Williams, Davis, Brooks & Co., Detroit.....	1890
Jones, H. Otis, New Buffalo.....	1895
Johnson, J. G., Traverse City.....	1884
Johnson, O. C., Ann Arbor.....	1884
Judson, F. E., Brighton.....	1883
Kelley, F. H., Au Sable.....	1884
Kemink, Theo., Valley City Drug Co., Grand Rapids.....	1884
Kennedy, T. B., Commerce.....	1888
Kenyon, W. W., Howell.....	1884
Kephart, H., Berrien Springs.....	1883
Kimmich, Robert S., 202 Washington Ave. N., Lansing.....	1897
Kingsley, John, M. D., Manistee.....	1889
Kirchner, J. S., 609 Congress St. E., Detroit.....	1895
Kirkwood, P. B., Negaunee.....	1895
Knill, Jr., H. C., Port Huron.....	1888
Koon, C. S., Muskegon.....	1885
Lacroix, Joseph J., Bay City.....	1890
LaRue, C. M., West Bay City.....	1885
Law, Dr. W. J., Baraga.....	1889
Leland, N. P., Durand.....	1886
Lentz, Theo., Campbell Ave. and River St., Detroit.....	1885
Lever, Henry, M. D., Fremont.....	1884
Leyerer, George S., Bay City.....	1890
Lipinski, Julius, 156 Gratiot Ave., Detroit.....	1895
Little, A. F., Aarwood, Kalkaska Co.....	1885
Luce, Jr., W. O., Caro.....	1885
Lyman, Dr. M. R., Gagetown.....	1891
Lyon, L. W., 722 St. Aubin Ave., Detroit.....	1895
Martin, E. C., Capac.....	1897
McCullough, Edward P., care Stevens & Todd, Detroit.....	1890
McDonald, D., 177 E. Main St., Kalamazoo.....	1884
McDonald, D. T., Red Jacket.....	1883
McDonald, George, Kalamazoo.....	1885
McEvoy, J. E., Manistee.....	1883
McFarland, A., Detroit.....	1883
McGee, Thomas H., Farmington.....	1891
McKenna, J. D., Shepherd.....	1884
McKevitt, H. D., Ishpeming.....	1895
McKibbin, R. S., 322 Fort St. W., Detroit.....	1888
McMullen, G. H., Ionia.....	1893
MacKimmie, G. D., 29 Jefferson Ave., Detroit.....	1888

Main, James I., Tekonsha, Calhoun Co.....	1895
Mann, Charles F., 845 Third Ave., Detroit.....	1888
Martin, A. F., Imlay City.....	1884
Martin, Henry, 105 Main St., Jackson.....	1884
Martin, Susie A., Holland.....	1885
Mason, C. A., Flint.....	1885
Mason, J. F., Warren.....	1888
Matthews, Geo. M., 6th and Broadway Sts., Grand Rapids.....	1891
Maxson, M. M., Hudson.....	1885
Mayer, F. W., Sebewaing.....	1884
Meseroll, D. C., 154 Main St., Jackson.....	1884
Mesick, H. J., Plainwell.....	1886
Miller, Archie T., Swartz Creek.....	1890
Miller, H. J., Vassar.....	1885
Millikin, T. J., St. Clair.....	1884
Millsbaugh, Martin Benedict, 98 N. Union St., Grand Rapids.....	1890
Moore, L. G., cor. Michigan and Gratiot Aves, Saginaw, W. S.....	1890
Morris, H. M., 919 Grand River Ave., Detroit.....	1888
Morrish, N. D., Sault Ste. Marie.....	1895
Mulr, J. D., Grand Rapids.....	1886
Maurer, Carl L., Cadillac.....	1895
Nasmyth, P. F., cor. Baker and 18th Sts., Detroit.....	1888
Nelson, E. H., Nelson, Baker & Co.....	1884
Newell, C. P., Flushing.....	1884
Niver, Mrs. W. H., Chesaning.....	1888
Nugent, W. A., Bay Mills.....	1891
Orr, J. J., Tecumseh.....	1884
Osborne, G. A., Luther.....	1887
Palmer, Dr. Henry, St. Johns.....	1889
Parker, A. S., 747 Woodward Ave., Detroit.....	1883
Parker, O. J., Howell.....	1889
Parkill, S. E., Owosso.....	1883
Passage, J. H., Greenville.....	1886
Pasternackl, Charles L., 779 Hastings St., Detroit.....	1895
Patenaude, A., Norway.....	1887
Patterson, B. M., 238 Randolph St., Detroit.....	1885
Pauly, L., St. Ignace.....	1887
Peck, J. E., Grand Rapids.....	1885
Peckham, H. C., Freeport.....	1885
Pegg, H. D., Morenci.....	1884
Perham, J. T., Kent City.....	1888
Perry, D. B., West Bay City.....	1883
Perry, F. W. R., 709 Woodward Ave., Detroit.....	1883
Pettitt, Charles E., Sand Beach.....	1890
Phelps, L. A., Saugatuck.....	1888
Phillips, E. F., Armada.....	1883
Phillips, F. S., Ogden.....	1884
Phillips, H. S., Carson City.....	1888
Phillips, W. R., Battle Creek.....	1883
Pierson, L. R., 511 Walnut St., Des Moines, Iowa.....	1888
Pike, N., Morley.....	1888
Potter, Frank P., Allegan.....	1892
Powell, A. H., Gladstone.....	1890
Power, J. O., Addison.....	1884
Prall, D. E., Saginaw, E. S.....	1883
Pratt, G. O., 720 St. Antoine St., Detroit.....	1884

Prescott, A. B., Ann Arbor.....	1883
Price, Fred R., Sault Ste. Marie.....	1893
Price, George A., Spring Lake.....	1892
Prosser, H. H., Flushing.....	1895
Purvis, G. S., 983 Jefferson Ave., Detroit.....	1885
Ralzon, James, M. D., 406 N. Commercial St., Trinidad, Col.....	1888
Ray, G. C., West Bay City.....	1885
Raynale, Frank B., Lansing.....	1891
Reidy, Mike, Corunna.....	1884
Remus, William, Grand Rapids.....	1892
Reynolds, Linton E., 503 Michigan Ave., Lansing.....	1890
Rheinfrank, J. P., Detroit.....	1894
Richmond, Dr. T. W., Bear Lake.....	1888
Richter, Louis J., Saginaw, W. S.....	1895
Riggs, Miles E., Cheboygan.....	1891
Ripley, L. G., Montague.....	1884
Roberts, D. O., Kalamazoo.....	1887
Rodenbaugh, H. W., Breedsville.....	1887
Rodenbaugh, J. N., Mancelona.....	1886
Roeser, Otto W., Saginaw, W. S.....	1890
Rodgers, E. J., Port Huron.....	1884
Rogers, A., Ravenna.....	1888
Roscoe, Fred, 916 Water St., Bay City.....	1894
Rothacher, Jacob W., 720 Gratiot Ave., Detroit.....	1892
Rudolph, A. E., Dowagiac.....	1886
Runner, J. W., Shelby.....	1886
Russell, Dorian M., 84 Canal St., Grand Rapids.....	1892
Russell, Ellsworth E., Jackson.....	1890
Sackett, S. M., Monroe.....	1883
Safford, O. P., Flint.....	1883
Sawyer, R. J., Menominee.....	1883
Schlotterbeck, Julius O., Ann Arbor.....	1890
Schmidt, Walter Karl, 84 Canal St., Grand Rapids.....	1892
Schott, A. A., Saginaw, E. S.....	1888
Schrouder, Benj., 209 E. Bridge St., Grand Rapids.....	1892
Schultz, L. S., St. Joseph.....	1885
Schumacher, A. C., Ann Arbor.....	1887
Schumacker, A. B., Grand Ledge.....	1884
Scott, Dr. H. J., Seney.....	1890
Seeley, C. A., 218 S. Washington Ave., Lansing.....	1888
Selleck, Robert W., Flint.....	1890
Shaffer, John M., Gladwin.....	1889
Sherrard, Charles C. (Ph. C.), 121 20th St., Detroit.....	1892
Sherwood, C. L., Dowagiac.....	1884
Shook, D. L., Coral.....	1884
Siebert, G. F., Iron Mountain.....	1883
Sigler, F. A., Pinckney.....	1885
Simoneau, Leander, Saginaw, E. S.....	1890
Simoneau, Richard T., Saginaw, E. S.....	1890
Simpson, Floyd D., Flint.....	1891
Sloan, E. E., Flint.....	1885
Smith, Charles E., Pontiac (Box 467).....	1891
Smith, Fletcher, S. Saginaw.....	1883
Smith, Frank W., Hillsdale.....	1891
Smith, Samuel R., 225 S. Division St., Grand Rapids.....	1892
Spyde, W. H., Bloomingdale.....	1886

Speckhard, Adolphus O., Watersmeet.....	1891
Spenser, J. L., Linden.....	1883
Spenser, M. Ella, Linden.....	1884
Sprague, W. G., Flushing.....	1883
Stafford, Joseph, Newberry.....	1890
Stanton, H. N., Sidnaw.....	1885
Stearns, Frederick K., Detroit.....	1891
Steinkohl, Frederick, Manchester	1889
Stevens, A. B., Ann Arbor.....	1883
Stevens, F. D., 133 Woodward Ave., Detroit.....	1883
Stoeckly, Louis, Iron Mountain.....	1891
Stone, C. G., Detroit.....	1884
Stover, H. E., Kalamaska.....	1886
Stiner, James W., Unionville.....	1890
Stringer, G. W., 898 Michigan Ave., Detroit.....	1884
Summers, J. W. F., Gould City.....	1892
Swaby, G. A., Bay City.....	1885
Sweet, B. F., Carson City.....	1885
Sweetser, F. E., Port Huron.....	1888
Swift, George, 101 Griswold St., Detroit.....	1883
Taylor, Mrs. C. W., Loomis.....	1885
Taylor, H. S., 54 Selden Ave., Detroit.....	1889
Tepoorten, Frank A., Bay City.....	1890
Thompson, Frank A., Detroit.....	1889
Thum, Hugo, Grand Rapids.....	1884
Tilton, B. E., Bay City.....	1885
Todd, A. M., Kalamazoo.....	1887
Tomlinson, A. E., Saginaw, W. S.....	1890
Tomlinson, W. A., Au Sable.....	1884
Treat, A. B., Adrian.....	1884
Tubbs, C. C., Chesaning.....	1883
Tupper, F. L., Salzburg.....	1885
Turner, Dr. R., Flat Rock.....	1886
Tuttle, W. A., Holly.....	1883
Upson, Eugene S., Durand.....	1896
Van Bochove, R., Grand Rapids.....	1886
Vandecar, J. H., North Branch.....	1883
Van Marter, Ezra J., 428 E. Main St., Jackson.....	1884
Van Ostrand, Edward T., Allegan.....	1893
Van Sickle, Clarence E., St. Johns.....	1892
Van Vranken, G. D., Cadillac.....	1886
Varnum, E. C., Jonesville.....	1884
Varnum, G. C., Jonesville.....	1884
Vaughan, B. D., 219 Superior St., Albion.....	1884
Vaughan, William H., Alpena.....	1890
Vedder, E. H., cor. Midland and Walnut Sts., West Bay City.....	1885
Velch, Arthur, Mayville.....	1890
Vernor, James, 33 Woodward Ave., Detroit.....	1884
Waite, S. E., Traverse City.....	1884
Walker, A. L., 411 Woodward Ave., Detroit.....	1888
Walker, J. David, Saginaw, E. S.....	1891
Walker, W. K., Lansing.....	1883
Walsh, Heber, 63 E. Eighth St., Holland.....	1885
Ward, G. J., St. Clair.....	1884
Warne, F. C., East Jordan.....	1886
Warren, W. M., with Parke, Davis & Co., Detroit.....	1888

Watson, J. B., Coopersville.....	1884
Watz, H. G., Saginaw.....	1884
Webb, B. S., Alma.....	1886
Webb, E. T., Jackson.....	1885
Webber, A. H., Cadillac.....	1884
Weeks, James E., Battle Creek.....	1889
Weiss, J., Monroe.....	1888
Wellman, Bert E., Armada.....	1894
Wells, C. A., Yale.....	1886
Wendover, W. V., 1473 Woodward Ave., Detroit.....	1895
Westervelt, F. E., Hotel Vendome, Grand Rapids.....	1896
Wetzel, H. A., 902 Jefferson Ave., Detroit.....	1888
Whipple, G. N., 222 Orleans St., Detroit.....	1885
Wilber, C. H., St. Ignace.....	1887
Wilders, A. J., Ortonville.....	1885
Wilkins, F. C., Union City.....	1885
Williams, R. P., care Farrand, Williams & Clark, Detroit.....	1888
Williams, W. C., care Williams, Davis, Brooks & Co., Detroit.....	1884
Williamson, John, Detroit.....	1884
Winegar, Willard S., Lowell.....	1892
Witherspoon, G. A., Chatham, Ont.....	1885
Witherspoon, P. E., Harrison.....	1885
Wolfinger, C. E., Hopkins Station.....	1884
Wood, William A., Six Lakes.....	1888
Wood, Will H., Sheridan.....	1887
Woods, C. H., 524 Grand River Ave., Detroit.....	1888
Wright, Charles, W. Larned St., Detroit.....	1883
Wright, C. A., Tecumseh.....	1884
Wurzburg, F. J., Grand Rapids.....	1884
Yeomans, E. T., Ionia.....	1883

HONORARY MEMBERS.

Duffield, S. P., Ph., M. D., Detroit.....	Elected	1887
Englehard, G. P., Chicago, Ill.....	"	1883
Lyons, Albert B., Detroit.....	"	1891
Stowell, Mrs. L. R., M. D., Washington, D. C.....	"	1887
Vaughan, V. C., Ph. D., M. D., Ann Arbor.....	"	1887
Wrampelmeier, T. J., Ph. C., San Diego, Cal.....	"	1887
Wells, Frank, Lansing.....	"	1890
Hoffman, Fr., Ph. D., New York City.....	"	1893
Jesson, Jacob, Anaheim, Cal.....	"	1894

ASSOCIATE MEMBER.

C. W. Dierdorf, Grand Rapids.

RESIGNED AND DROPPED.

Bostick, C. H., Manton.
 Boynton, O. C., Port Huron.
 Buchanan, B. F., Harrisville.
 Crouter, G. W., Charlevoix.
 Curtis, C. A., Petoskey.
 Efbrandt, Henry, Negaunee.
 Gidday, F. C., Detroit.
 Graham, A. B., Detroit.
 Mann, Albert, Ann Arbor.
 Nutt, E. C., Cheboygan.
 Roussin, V., Ludington.
 Williams, J. P., Climax.

Died.

Whitmarsh, S. P., Palmyra.
 Moore, John, Ann Arbor.
 Morrison, A. W., Constantine.
 Dewey, C. C., Napoleon.
 Rodenbaugh, O. S., Mancelona.
 Lyman, A. H., Manistee.
 Van Emster, F. H. J., Bay City.

MICHIGAN STATE BOARD OF PHARMACY.

F. W. R. PERRY, Detroit.....Term expires Dec. 31, 1898
GEO. GUNDRUM, Ionia.....Term expires Dec. 31, 1900
A. C. SCHUMACHER, Ann Arbor...Term expires Dec. 31, 1899
STANLEY E. PARKILL, Owosso...Term expires Dec. 31, 1897
L. E. REYNOLDS, St. Joseph.....Term expires Dec. 31, 1901

OFFICERS OF BOARD.

F. W. R. PERRY, Detroit.....President
GEO. GUNDRUM, Ionia.....Secretary
A. C. SCHUMACHER, Ann Arbor.....Treasurer

EXAMINATION SESSIONS OF BOARD.

Sault Ste. Marie, August 24-25, 1897.
Lansing, November 2-3, 1897.
Detroit, January —, 1898.
Grand Rapids, March 1-2, 1898.
Star Island, July 5-6, 1898.

THE PHARMACY LAW.

AN ACT

To regulate the practice of pharmacy in the State of Michigan.
Act No. 134, Laws of 1885:

Section 1. The People of the State of Michigan enact, That the Governor, with the advice and consent of the Senate, shall, within thirty days after the passage of this act, appoint five persons and annually thereafter one person from among such competent pharmacists in the State as have had ten years' practical experience in dispensing physician's prescriptions, who shall constitute the Michigan Board of Pharmacy. The term of office of said five persons shall be so arranged that the term of one shall expire on the thirty-first day of December of each year, and all appointments made thereafter shall be for the term of five years.

Sec. 2. The said board shall, within thirty days after its appointment, meet, and organize, by election of a President and Secretary, from its own members, who shall be elected for the term of one year, and shall perform the duties prescribed by the board. It shall be the duty of the board to examine all applications for registration submitted in proper form; to grant certificates of registration to such persons as may be entitled to the same under the provisions of this act; to investigate complaints and to cause the prosecution of all persons violating its provisions; to report annually to the Governor and to the Michigan Pharmaceutical Association upon the condition of pharmacy in the State, which said report shall also furnish a record of the proceedings of the said board for the year, and also names of all pharmacists duly registered under this act; the board shall hold meetings for the examination of applicants for registration, and the transaction of such other business as shall pertain to its duties, at least once in four months, said meetings to be held on the first Tuesdays of March, July and November in each year; shall make By-laws for the proper fulfillment of its duties under this act, and shall keep a book of registration in which shall be entered the names and places of business of all persons registered under this act, which book shall also specify such facts as said persons shall claim to justify their registration. The records of said board, or a copy of any part thereof, certified by the Secretary to be a true copy, attested by the seal of the board, shall be accepted as competent evidence in all courts of the State. Three members of said board shall constitute a quorum.

Sec. 3. The Secretary of the board and the treasurer thereof, if such separate office be created, shall receive a salary which shall be fixed by the board; they shall also receive the amount of their traveling and other expenses incurred in the performance of their official duties. The other members shall receive the sum of three dollars for each day actually engaged in this service, and all legitimate and necessary expenses incurred in the performance of their official duties. Said salaries, per diem, and expenses, shall be paid from the fees received under the provisions of this act. All moneys received in excess of said per diem allowance, and all other expenses above provided for, shall

be paid into the State treasury at the end of each year, and so much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof. If, in any year, the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the Board of State Auditors and to the Michigan Pharmaceutical Association, of all moneys received and disbursed by it pursuant to this act.

Sec. 4. Every person who shall within three months after this act takes effect, forward the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, at the time this act takes effect, in the preparation of physicians' prescriptions, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist: Provided, That in case of failure or neglect to register as herein provided, then such person shall, in order to be registered, comply with the requirements provided for registration as a licentiate in pharmacy hereinafter described.

Sec. 5. No person other than a licentiate in pharmacy shall be entitled to registration as a pharmacist, except as provided in Section Four. Licentiates in pharmacy shall be such persons, not less than eighteen years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the board a fee of three dollars: Provided, That in case of a failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within one year. The said board may grant certificates of registration without further examination to the licentiates of such other boards of pharmacy as it may deem proper upon a payment of a fee of two dollars.

Sec. 6. The said board may grant, under such rules and regulations as it may deem proper, at a fee not exceeding one dollar, the certificate of registered assistant to clerks or assistants in pharmacy not less than eighteen years of age, who at the time this act takes effect, shall be engaged in such service in this State, and have been employed or engaged two years or more in the practice of pharmacy; but such certificate shall not entitle the holder to engage in such business on his own account, or to take charge of, or act as manager of, a pharmacy or drug store.

Sec. 7. Each registered pharmacist, or registered assistant, who desires to continue the practice of his profession shall annually, after the expiration of the first year of his registration, during the time he shall continue in such practice, on such date as the board of pharmacy may determine, pay to the said board a registration fee to be fixed by the board, but which shall not exceed one dollar for a pharmacist, or fifty cents for an assistant, for which he shall receive a renewal of said registration. Every person receiving a certificate under this act shall keep the same conspicuously exposed in his place of business. Every

registered pharmacist, or assistant, shall, within ten days after changing his place of business or employment, as designated by his certificate, notify the Secretary of the board of his new place of business. If any pharmacist or registered assistant shall fail or neglect to procure his annual registration, or to comply with the other provisions of this section, his right to act as such pharmacist or assistant shall cease at the expiration of ten days from the time notice of such failure to comply with the provisions of this section shall have been mailed to him by the Secretary of said board.

Sec. 8. All or any registration obtained through false representations shall be void, and the board of pharmacy may hear complaints and evidence, and may revoke such certificates as it may deem improperly held.

Sec. 9. Any proprietor of a pharmacy who, not being a registered pharmacist, shall, ninety days after this act takes effect, fail or neglect to place in charge of such pharmacy a registered pharmacist; or any such proprietor who shall by himself, or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines, or poisons, in his store or place of business except by, or in the presence and under the supervision of, a registered pharmacist, or except by a registered assistant; or any person not being a registered pharmacist who shall take charge of, or act as manager of, such pharmacy or store, or who, not being a registered pharmacist or registered assistant, shall retail, compound, or dispense drugs, medicines, or poisons; or any person violating any other provision of this act to which no other penalty is herein attached, shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than ten nor more than one hundred dollars, and in default of payment thereof, shall be imprisoned not less than ten days nor more than ninety days, or both, such fine and imprisonment in the discretion of the court.

Sec. 10. Nothing in this act shall apply to, or in any manner interfere with, the business of any practicing physician who does not keep open shop for retailing, dispensing, or compounding of medicines and poisons, or prevent him from supplying to his patient such articles as may seem to him proper; nor to the vending of patent or proprietary medicines by any retail dealer who has been in such business three years or more; nor to the selling by any person of drugs, medicines, chemicals, essential oils, and tinctures which are put up in bottles, boxes or packages, bearing labels securely affixed, which labels shall bear the name of the pharmacist or druggist putting up the same, the dose that may be administered to persons three months, six months, one year, three years, five years, ten years, fifteen years, and twenty-one years of age, and, if a poison, the name or names of the most common antidotes: of copperas, borax, blue vitriol, saltpetre, pepper, sulphur, brimstone, Paris green, licorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, glycerine, Glauber Salts, epsom salts, cream tartar, bicarbonate of soda, sugar of lead, and such acids as are used in coloring and tanning; nor to the selling of paregoric, essence of peppermint, essence of ginger, essence of cinnamon, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits

of camphor, number six, sweet spirits of nitre, laudanum, quinine and all other preparations of cinchona bark, tincture of aconite, and tincture of iron, compound cathartic pills, or quinine pills, nor to the exclusively wholesale business of any dealer; Provided, That every person who shall within three months after this act takes effect forward to the board of pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, in the preparation of physicians' prescriptions, three years next previous to the second day of June, 1885, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist. And provided further, That the said board may grant, at a fee not exceeding one dollar, to such person not less than sixteen years of age who shall pass a satisfactory examination touching his competency before the board of pharmacy, the certificate of registered "assistant," but such certificate shall not entitle the holder to engage in business on his own account or to take charge of, or act as manager of, a pharmacy or drug store.

Sec. 11. No person shall add to or remove from any drug, medicine, chemical, or pharmaceutical preparation, any ingredient or material, for the purpose of adulteration or substitution, which shall deteriorate the quality, commercial value, or medicinal effect, or which shall alter the nature or composition of such drug, medicine, chemical, or pharmaceutical preparation, so that it will not correspond to the recognized tests of identity or purity. Any person who shall thus wilfully adulterate or alter, or cause to be adulterated or altered, or shall sell or offer for sale, any such drugs, medicine, chemical, or pharmaceutical preparation, or any person who shall substitute or cause to be substituted, one material for another, with the intention to defraud or deceive the purchaser, shall be guilty of a misdemeanor, and be liable to prosecution under this act. If convicted, he shall be liable to all the costs of the action, and for the first offense be liable to a fine of not less than ten dollars nor more than one hundred dollars, and for each subsequent offense a fine of not less than twenty-five dollars nor more than one hundred and fifty dollars. On complaint being entered, the Board of Pharmacy is hereby empowered to employ an analyst or chemist, whose duty it shall be to examine into the so-called adulteration, substitution or alteration, and report upon the result of his investigation; and if said report shall be deemed to justify such action, the Board shall duly cause the prosecution of the offender, as provided in this act.

Sec. 12. The senior pharmacist of every house dispensing and compounding medicines, registered under this act, shall be exempt and free from all jury duty in the courts of this State.

Sec. 13. All acts and parts of acts in conflict with the provisions of this act are hereby repealed.

Approved June 2, 1885.

Direct all communications regarding Examinations, Violations of Pharmacy Law, etc., to Geo. Gundrum, Secretary State Board of Pharmacy, Ionia, Mich.

FARRAND, WILLIAMS & CLARK,

DETROIT, MICH.

Importers and Wholesale Druggists.

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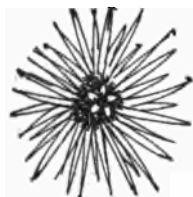
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∴ WERE DISCUSSING THE
∴ QUESTION OF SUCCESS

"Aside from education and training," said the elder, "the whole matter can be summed up in one word—reliability. Get the confidence of physicians through reliable chemicals and drugs; secure the esteem of the public by being trustworthy in every relation. Location, store appointment, stock, technical skill, suavity of manner are all discounted more or less if a man's goods are unreliable. Poor drugs, poor results; poor results, poor reputation; poor reputation, meager success." The opinion cannot be refuted; purity is the primal requisite of chemicals and drugs.

Thousands of pharmacists order Merck's Chemicals because of uniform purity. Thousands of physicians prescribe Merck's Chemicals because of the certainty of therapeutical effect. Test them chemically or physiologically, they comply with all requirements. That is the reason they have earned and enjoy the preference.

Merck's
Chemicals

can be obtained through any wholesale drug house in the United States, in original, unbroken packages of any desired size, and at prices not higher than those charged for other labels.

Specify:
Merck's

Changes in pharmacy are frequent and radical. MERCK'S REPORT will help you keep step with progress. Over 11,000 pharmacists subscribe for it. Sample copy free. \$2.00 a year, 24 numbers.

MERCK & CO.

UNIVERSITY
PLACE

NEW YORK

Are Cheap Goods Cheap?

We had occasion in the recent numbers of the *Pharmaceutical Journals to draw the attention of the trade to the subject of

ABSORBENT COTTON.

Unbroken pound packages of the various makes, (designated by the letters A, B, etc.) were purchased in the open market, and their contents carefully tested with the following results:

	SPECIMEN A	SPECIMEN B	SPECIMEN C	SPECIMEN D (S.&J.)
SHORT WEIGHT IN ONE POUND AVOIRDUPOIS.	605 grains.	431 grains.	374 grains	—

"A," "B" and "C" being in: 1. Quality—poor, and "dusting" badly from the presence of short fibre "waste" or "seconds." 2. Color—dirty cream or yellowish. 3. Absorbency—fair to good.

"S. & J." give full **7000 Grains of Cotton** to the pound—always have and always will. No short weights—rather **overweight** than **underweight**. Cotton of long staple—no "dusting," quickest in absorbency and not sandwiched with inferior grades in the middle of the lap.

THEN EXAMINE

BELLADONNA PLASTERS

Instead of having 0.5% alkaloid for a root extract plaster or 0.4% alkaloid for a leaf extract plaster, as Standard Belladonna Plasters should assay, like S. & J's do. Expert assays of all others show other makes as follows: "B," 1-5; "C & D," 1-6; "E," 1-10; "F," 1-13; "G," 1-20 **ONLY** of the strength of the standard plaster!

Might just as well expect the effects of belladonna from a plain, adhesive plaster as to expect them from such weak and worthless preparations.

Can you afford to risk your own reputation, counteract therapeutics and trifle with the sufferings of your patrons by dispensing goods whose only claim is cheapness?

Get honest goods and specify "S. & J." everytime.

SEABURY & JOHNSON, ⁵⁹⁻⁶¹ MAIDEN LANE, NEW YORK

*Druggists' circ.—Nat. Drug. Aug. 1, 1897, etc.

English Lavender Jelly.



*A Perfect Toilet
Requisite for Gentlewomen.*

SEASONABLE
AT ALL
TIMES.

This Preparation is totally different from and far in advance of any other article for Chapped Hands and Face, Sore Lips, Tan and Sunburn. Keeps the Skin Soft, Velvety and White, and Allays all Irritation and Roughness. A Specific for Burns and Scalds, applied immediately and liberally. Gentlemen will find it superb after Shaving.

DIRECTIONS—After washing and wiping dry, apply a small quantity of the Jelly, and rub in thoroughly. Apply also on retiring at night.

NOT STICKY. CONTAINS NO OIL. KID GLOVES CAN BE WORN IMMEDIATELY AFTER USING THE JELLY.

Highly recommended by the Medical, Musical and Dramatic Professions, and Elite of England's Society.

PRICE, 25 CENTS.

MANUFACTURED ONLY BY

T. H. HINCHMAN, SONS & CO.,

Manufacturing Chemists and Wholesale Druggists,

DETROIT, MICH.

FOUNDED A. D. 1818.

POWERS & WEIGHTMAN, MANUFACTURING CHEMISTS, Philadelphia.

NEW YORK OFFICE, 56 MAIDEN LANE.

QUININE
AND ALL ITS SALTS.

MORPHINE
AND ALL ITS SALTS.

STRICTLY OF OUR OWN MANUFACTURE.

FULL LINE OF **CHEMICALS** FOR USE IN
MEDICINE,
PHOTOGRAPHY
AND THE ARTS.

SOLD IN **WHOLESALE QUANTITIES** ONLY.

In Ordering Chemicals from your Jobber, insist upon
having **POWERS & WEIGHTMAN'S.**

PURE CHEMICALS

Among the large number of pure, medicinal chemicals we manufacture, we call your attention particularly to the following:

Carbolic Acid, Gilt Label Hard crystals, remaining white, free from tarry matter, a superior article for dispensing purposes.

Bismuth Subnitrate Very white, bulky powder, free from Arsenic, Lead, Antimony, and other contaminations.

Chloroform and Ether Carefully prepared for inhalation and absolutely pure.

Cocaine Hydrochlorate In handsome, well defined crystals, unsurpassed for purity and appearance.

Hydrogen Dioxide Prepared in accordance with the U. S. Pharmacopoeia, and unsurpassed for purity, strength, and keeping qualities.

Sodium Salicylate In the form of small CHEMICALLY PURE CRYSTALS entirely neutral and dissolving perfectly.

Chemically Pure Acids, Iodides, Bromides, Pure Granulated Salts, Calomel, Corrosive Sublimate, and other Mercurials, Ethers, etc.

We are endeavoring to excel in the purity of all of our products, and careful pharmacists are requested to satisfy themselves of the superior quality of "Mallinckrodt's" chemicals by a critical examination and comparison with other makes.

All jobbing drug houses can supply our chemicals as low as those of any reliable manufacturer, and we ask the support of pharmacists by specifying "Mallinckrodt's" when ordering, and allowing no substitution of other brands.

**MALLINCKRODT CHEMICAL WORKS,
ST. LOUIS, MO.**



HERMETICALLY SEALED

"As to the antitoxin to use, having tried five or six different makes in the past two years, I have found that manufactured by Parke, Davis & Co. most efficacious. Apart from the potency of this brand, I must commend the ingenious manner in which it is marketed, viz., in hermetically-sealed glass bulbs, which exclude the air and keep the serum strictly aseptic."—DR. GEO. DUFFIELD, in the *Journal of the American Medical Association*, March 6th, 1897, page 446.

Parke, Davis & Co.,

DETROIT, NEW YORK, KANSAS CITY, BALTIMORE, NEW ORLEANS, U. S. A.

LONDON, Eng., and WALKERVILLE, Ont.

be paid into the State treasury at the end of each year, and so much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof, if, in any year, the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the Board of State Auditors and to the Michigan Pharmaceutical Association, of all moneys received and disbursed by it pursuant to this act.

Sec. 4. Every person who shall within three months after this act takes effect, forward the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, at the time this act takes effect, in the preparation of physicians' prescriptions, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist: Provided, That in case of failure or neglect to register as herein provided, then such person shall, in order to be registered, comply with the requirements provided for registration as a licentiate in pharmacy hereinafter described.

Sec. 5. No person other than a licentiate in pharmacy shall be entitled to registration as a pharmacist, except as provided in Section Four. Licentiates in pharmacy shall be such persons, not less than eighteen years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the board a fee of three dollars: Provided, That in case of a failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within one year. The said board may grant certificates of registration without further examination to the licentiates of such other boards of pharmacy as it may deem proper upon a payment of a fee of two dollars.

Sec. 6. The said board may grant, under such rules and regulations as it may deem proper, at a fee not exceeding one dollar, the certificate of registered assistant to clerks or assistants in pharmacy not less than eighteen years of age, who at the time this act takes effect, shall be engaged in such service in this State, and have been employed or engaged two years or more in the practice of pharmacy; but such certificate shall not entitle the holder to engage in such business on his own account, or to take charge of, or act as manager of, a pharmacy or drug store.

Sec. 7. Each registered pharmacist, or registered assistant, who desires to continue the practice of his profession shall annually, after the expiration of the first year of his registration, during the time he shall continue in such practice, on such date as the board of pharmacy may determine, pay to the said board a registration fee to be fixed by the board, but which shall not exceed one dollar for a pharmacist, or fifty cents for an assistant, for which he shall receive a renewal of said registration. Every person receiving a certificate under this act shall keep the same conspicuously exposed in his place of business. Every

registered pharmacist, or assistant, shall, within ten days after changing his place of business or employment, as designated by his certificate, notify the Secretary of the board of his new place of business. If any pharmacist or registered assistant shall fail or neglect to procure his annual registration, or to comply with the other provisions of this section, his right to act as such pharmacist or assistant shall cease at the expiration of ten days from the time notice of such failure to comply with the provisions of this section shall have been mailed to him by the Secretary of said board.

Sec. 8. All or any registration obtained through false representations shall be void, and the board of pharmacy may hear complaints and evidence, and may revoke such certificates as it may deem improperly held.

Sec. 9. Any proprietor of a pharmacy who, not being a registered pharmacist, shall, ninety days after this act takes effect, fail or neglect to place in charge of such pharmacy a registered pharmacist; or any such proprietor who shall by himself, or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines, or poisons, in his store or place of business except by, or in the presence and under the supervision of, a registered pharmacist, or except by a registered assistant; or any person not being a registered pharmacist who shall take charge of, or act as manager of, such pharmacy or store, or who, not being a registered pharmacist or registered assistant, shall retail, compound, or dispense drugs, medicines, or poisons; or any person violating any other provision of this act to which no other penalty is herein attached, shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than ten nor more than one hundred dollars, and in default of payment thereof, shall be imprisoned not less than ten days nor more than ninety days, or both, such fine and imprisonment in the discretion of the court.

Sec. 10. Nothing in this act shall apply to, or in any manner interfere with, the business of any practicing physician who does not keep open shop for retailing, dispensing, or compounding of medicines and poisons, or prevent him from supplying to his patient such articles as may seem to him proper; nor to the vending of patent or proprietary medicines by any retail dealer who has been in such business three years or more; nor to the selling by any person of drugs, medicines, chemicals, essential oils, and tinctures which are put up in bottles, boxes or packages, bearing labels securely affixed, which labels shall bear the name of the pharmacist or druggist putting up the same, the dose that may be administered to persons three months, six months, one year, three years, five years, ten years, fifteen years, and twenty-one years of age, and, if a poison, the name or names of the most common antidotes: of copperas, borax, blue vitriol, saltpetre, pepper, sulphur, brimstone, paris green, licorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, glycerine, Glauber Salts, epsom salts, cream tartar, bicarbonate of soda, sugar of lead, and such acids as are used in coloring and tanning; nor to the selling of paregoric, essence of peppermint, essence of ginger, essence of cinnamon, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of sassafras, spirits

AN OPEN LETTER To DRUGGISTS.

WE ARE ASSERTING IN THE COURTS OUR RIGHT TO THE EXCLUSIVE USE OF THE WORD "CASTORIA," AND "PITCHER'S CASTORIA," AS OUR TRADE MARK.

I, DR. SAMUEL PITCHER, of Hyannis, Massachusetts, was the originator of "PITCHER'S CASTORIA," the same that has borne and does now *on every* bear the fac-simile signature of *Chas. H. Fletcher* wrapper. This is the original "PITCHER'S CASTORIA" which has been used in the homes of the mothers of America for over thirty years. LOOK CAREFULLY at the wrapper and see that it is the kind you have always bought, *on the* and has the signature of *Chas. H. Fletcher* wrapper. No one has authority from me to use my name except The Centaur Company of which Chas. H. Fletcher is President.

March 8th, 1897.

Samuel Pitcher M.D.

\$33.60 per Gross, \$2.80 per Dozen.

Jobbers sell in gross lots, 5 per cent and 2½ per cent off.

THE KIND YOU HAVE ALWAYS BOUGHT.

A Michigan Endorsement



Dr. Mary E. Green,

President National Household Economics Ass'n
Member American Medical Ass'n
Member American Public Health Ass'n
Author of "Food Products of the World"

Here is What Dr. Green Writes
from Charlotte, Mich.

"The excellence of Pabst Malt Extract is not unknown to me, as I have used it professionally for years, always with the most satisfactory results. For mothers nursing their children and for general debility from any cause, I regard it as of especial value, as it combines both tonic and nutriment properties, which make it truly the 'Best' Tonic."

All Druggists sell PABST MALT EXTRACT, The "Best" Tonic

FREDERICK F. INGRAM & Co.

WING'S
PERFUMES

Elixirs,
Fluid Extracts,
Pharmaceutical Specialties,
Reliable Domestic Remedies,
Private Formulae Prepared,
Wing's Quadruple Extracts,
Toilet Goods, etc.



Perfumers.
Man'g
Pharmacists.

DETROIT, MICH.

HIGH GRADE

Prescription Corks

SOLD UNDER THE
NAME OF



ARE GUARANTEED

In every particular by the manufacturers
and recommended by the Association.

"Ask your Druggist about it"

IS THE MOTTO USED IN
ADVERTISING

Peckham's Croup Remedy

The Children's Cough Cure

The only 25c. Cough Cure Prepared especially
for Children.

\$2 per dozen.
3 doz. order less 5 per cent.
6 doz. order less 10 per cent.

Attractive advertising with Imprint sent
free on receipt of label. Specialties of your
own manufacture mentioned if requested.
Include Peckham's Croup Remedy in first
order to your jobber and write for advertis-
ing to PECKHAM'S CROUP REMEDY
CO., Freeport, Mich. Your orders solicited
by all wholesale druggists.

ASK YOUR DRUGGIST FOR

**Peckham's CROUP
REMEDY**
THE CHILDREN'S COUGH CURE.
PLEASANT-SAFE-CERTAIN. 25c a bottle.

Write for Catalogue Offer,
Closes Dec. 1st.

Duroy Port Wine.



*Kept in stock only by Retail Druggists.
Never sold to Saloons.*

Samples express paid to all Retail Druggists who desire to furnish their customers with delicious, pure medicinal wine.

ADDRESS

THE DUROY & HAINES CO.
SANDUSKY, OHIO.

SOLE GROWERS.

John C. Woodhouse & Co.

DETROIT,
MICHIGAN AGENTS

El Príncipe - De Gales

ALL HAVANA CIGARS.

ALSO

CHIEF BATTLES and } 5c. CIGARS.
SMOKETTES

Invest your Dime in a

GREEN SEAL
CIGAR

and get the worth of your Money.

3 TRADE WINNING PERFUMES

*CUBAN ROSES,
CUBAN LILIES and
WILDWOOD VIOLET*

ORDER OF
YOUR
WHOLESALE
DRUGGISTS,
OR OF

FOOTE & JENKS.

JACKSON, MICH.

**No Druggist
Need
Fear**

TO
CARRY
IN
STOCK



**Peptenzyme Preparations,
Protonuclein Preparations,
Pancrobilin, Zymocide,
Soluble Food and Roboline.**

For a demand will be made for them in
every part of the country. Send for sam-
ples and printed matter.

REED & CARNRICK, NEW YORK.

**"Canadian
Club"**

WHISKY

**DISTILLED,
MATURED AND
BOTTLED BY**

***Hiram
Walker & Sons,***

LIMITED.

WALKERVILLE, CANADA.

BRANCHES:

London.

New York.

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**T**HIS whisky is bottled in bond under the direct supervision of the Excise Department of the Canadian Government, and its age and genuineness are guaranteed by an official certificate over the capsule of every bottle.

**CAUTION!** There are numerous pretended Canadian whiskies of a fraudulent character upon the United States market labelled "Montreal Club," "Toronto Club," "Windsor Club," etc., etc. No genuine Canadian whisky but ours is sold under any brand of which the word "Club" is a part, as the exclusive use of that word for Canadian whiskies is secured to us by registration.

Oliver H. Grunow, President  
D. S. Hallock, Vice-President.  
C. N. Anderson, Secretary-Treasurer.

**AUDITORS.**  
E. F. Phillips, Ex-Prest M. S. P. A.  
William Dupont, Ex-Treas. M. S. P. A.

**BOARD OF DIRECTORS.**  
Geo. W. Stringer, A. S. Parker,  
P. F. Nasmyth, F. W. R. Perry,  
Fred J. Todd, W. E. Flynn.

**INCORPORATED.**  
**CAPITAL STOCK, \$25,000.**

# The Pharmacists Cigar Company

**Principal Offices, 43 Champlain Street, Detroit, Mich.**  
**New Telephone No. 3335.**

**Branch Agency: Grand Rapids, Mich.**  
**BENJ. SCHROUDER, 209 E. Bridge St.**

.....

Owned, controlled and operated by Retail Druggists.  
No longer an experiment but a success.

Our first year's business, ending on August 24th, 1897,  
showed a profit to those who bought goods of 89½ per cent. on  
paid in capital stock.

Over 600 Retail Druggists in Michigan, Indiana and Ohio  
are interested in this concern.

If you want to increase your profits on Cigars, come in and  
join us.

## OUR BRANDS:



**Write for full particulars to the above address.**

PROCEEDINGS OF THE SEVENTH ANNUAL MEETING OF  
THE MICHIGAN STATE  
PHARMACEUTICAL ASSOCIATION



1898

*C. H. Ritter & Co.,*

*147 and 144 Jefferson Ave., Detroit, Mich.,*

SOLE IMPORTERS  
OF THE PRODUCT



Westminster  
Pure - Rye -  
Whiskey.

OUR whiskey is distilled from Rye and barley  
Malt only, and is fully matured in steam heated  
government bonded warehouses. Our cases promptly  
bottled under our personal supervision and are war-  
ranted absolutely pure and unadulterated.

Sold in Wood and in Cases containing  
12 quart Bottles, at \$10.00 per case.

Sole Importers of

*The Sonoma Wine Co., San Francisco, Cal.*

*Celebrated "SHASTA WINES."*



# Michigan Board of Pharmacy.

## SECRETARY'S OFFICE.

FRED'K W. R. PERRY, DETROIT, PRESIDENT.  
GEORGE GUNDRUM, IOWA, SECRETARY.  
A. C. SCHUMACHER, ANN ARBOR, TREASURER.  
LINTON E. REYNOLDS, ST. JOSEPH.  
HENRY HEIM, SAGINAW.

## Some Information, Possibly Interesting to Druggists, and Those Expecting to Become Such.

The regular meetings of the Board of Pharmacy are held the first Tuesday of March, July and November, unless they are changed for some good reason. One special meeting has been held for a number of years in the Upper Peninsula, sometime in August, and another special in January.

Meetings of the Board.

Sec. 5 of the pharmacy act reads: Licentiates in pharmacy shall be such persons, not less than 18 years of age, who shall have passed a satisfactory examination, touching their competency, before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the Board a fee of three dollars: Provided, That in case of a failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within a year. Persons who have had (one or two) examinations, as above stated, must file a new application, and pay the fee as in the first case.

Requirements for registered pharmacist.

Age 18 or more.

Fee \$3.00.

Entitled to a second examination.

Sec. 10 of the pharmacy act reads: The said Board may grant, at a fee not exceeding one dollar, to such persons not less than 16 years of age, who shall pass a satisfactory examination, touching their competency, before the Board of Pharmacy, the certificate of registered assistant, but such certificate shall not entitle the holder to engage in business on his own account, or to take charge of or act as manager of a pharmacy or drug store. Graduates of medical or pharmaceutical colleges must take the examination in order to become registered or assistant pharmacists.

Requirements for assistant.

16 years or more.

Fee \$1.00.

Cannot be proprietor or manager of store.

Every applicant should have at least such preliminary training in the common English branches as is required for entrance into a high school.

What is necessary study and knowledge of candidates.

Applicants for examination will be expected to have at least a rudimentary knowledge of chemistry; to be able to read and translate physicians' prescriptions; to point out incompatibilities, correct error in doses, and describe methods of procedure in dispensing; to have thoroughly studied the United States Pharmacopoeia; to have a general knowledge of materia medica, with

English education.

reference to doses, source of drugs, parts used in medicinal preparations, antidotes, and treatment in case of poisoning; to be able to identify specimens of crude drugs, give their names in English and Latin, therapeutic classification, etc.

No sample questions are sent to anyone.

Application blanks and affidavits.

Application blanks for examination and blank affidavits should be obtained from the Secretary. When writing for blanks state whether application blanks are for registered pharmacist or assistant. When in need of blank affidavits, state what they are needed for.

Application: when to be filed.

Applications for the examination must be filed with the Secretary at least one week before the examination.

Fee must be sent with application.

The fee must accompany the application in all cases; \$3.00 for registered pharmacist, and \$1.00 for assistant.

Rule 19.

The Secretary is instructed to use all lawful means to enforce the proper observance of the Pharmacy Law, and cause the prosecution and conviction of persons violating its provisions.

Violations of the pharmacy act.

Complaints of violations of the pharmacy law should be made to the Secretary of the Board of Pharmacy. The Secretary will not reveal the name of the complainant. The complaint should not be made on conjecture or hearsay. The Secretary cannot take notice of cut rate, rivalry, or competition in business. Where a person or firm violates the law, and the Secretary believes they are doing it ignorantly, he writes the reported violator, making it known to him that complaint is entered. If he promises to reform, and does so, or abstains from violation, that ends the matter. In case parties are willfully violating the law, the Board sends its attorney to investigate the case, and if necessary he enters complaint with the prosecuting attorney. The Secretary will esteem it a favor to have all bona fide cases reported.

Responsibility of proprietor.

It is erroneously supposed that the proprietor of a drug store is responsible for the acts of the unregistered clerk. The only one that can be prosecuted or fined is the offending unregistered clerk, or proprietor, if he is unregistered. Another error that many druggists entertain is that the pharmacy law was enacted for the druggists' protection, advantage or benefit. Such is not, however, the case. The law is in the interest, protection and welfare of the People of the State of Michigan.

Object of law.

Liquor law violations.

The Board of Pharmacy does not assume the prosecution of violations of the liquor law. All such complaints should be made to the prosecuting attorney of the county.

Rule 9.

Parties who apply before the Board for examination for a certificate as Registered Pharmacist, in case they fail to pass a satisfactory examination for such certificate, shall, if they so desire, be granted, on the payment of one dollar, a certificate as Registered Assistant Pharmacist, provided they have passed such

an examination as the Board shall deem entitles them to such certificate, and that the money sent with the original application for examination as a Registered Pharmacist, shall be held to their credit for a second examination as Registered Pharmacist at any time within a year from date of said examination, as required by Section 5, Act 134, laws entitled "An Act to Regulate the practice of Pharmacy in the State of Michigan."

Parties failing on examination for pharmacist may become assistants.

Resolved, That any person applying to the Board for examination for certificate as Registered Assistant Pharmacist, in case he pass a satisfactory examination, and make the percentage required of Registered Pharmacists, may, on furnishing affidavit showing that he has had at least three years' experience compounding drugs in a retail drug store, under the supervision of a Registered Pharmacist, be granted, on payment of the required fee of a Registered Pharmacist, a certificate of a Registered Pharmacist.

Rule 20.

Candidate for assistant may become a registered pharmacist

Resolved, That the Board of Pharmacy has not the power to reinstate any person who fails or neglects to renew his or her annual registration, as provided in Section 7 of the Pharmacy act—Act No. 134, Laws of 1885, entitled "An Act to regulate the practice of Pharmacy in the State of Michigan."

Rule 21.

Board has no power to reinstate.

Resolved, That applications for examination must be made out from some city, town, village or place in Michigan.

Rule 22.

Resolved, That all applicants for examination as Registered Pharmacists must have had at least three years' actual experience compounding drugs in a retail drug store, under the supervision of a Registered Pharmacist; and all applicants for examination as Registered Assistant Pharmacists must have had at least two years' actual experience compounding drugs in a retail drug store, under the supervision of a Registered Pharmacist.

Rule 23.

Length of experience required.

The time spent in a recognized College of Pharmacy shall be counted the same as time spent in a retail drug store, but not more than two years of such college work shall be counted as actual experience for a Registered Pharmacist, nor more than one year for a Registered Assistant Pharmacist: Provided, That the Registered Pharmacist must have had at least two full college years' study, and the Registered Assistant Pharmacist at least one full college year's study, to be entitled to such credit for actual experience. The college year shall consist of not less than ten hours class work and fifteen hours laboratory work a week, and of nine calendar months

Time spent in college.

A graduate of a recognized College of Medicine, who has practiced medicine three years, writing prescriptions, or putting up his own medicines, or both, shall be considered qualified to take the examination for Registered Pharmacist; and one who has practiced medicine as beforementioned, two years, shall be considered qualified to take the examination for Registered Assistant Pharmacist.

Rule 24.

Physicians qualified to take examination.

**Rule 25.**

**Affidavits and  
credentials.**

All applicants for examination must furnish affidavits from the person or persons under whom they served, showing by dates the length of time the applicant has been under the instruction of a Registered Pharmacist.

Graduates or students from recognized Colleges of Pharmacy must furnish proper credentials or affidavits from teachers, setting forth name of college and length of time of study in such college.

Medical practitioners must make affidavits, giving name and location of College or School of Medicine, year of graduation, where, and length of time of such practice.

**Give certificate  
number.**

When writing to the Secretary regarding any business, change of address, annual renewal, etc., be sure and give the number of your certificate, as for various reasons it becomes necessary for the Secretary to make out your identity by your certificate number.

**Duplicate certifi-  
cates.**

Duplicate certificates are furnished by the Secretary on return of the original, or affidavit of loss of the original.

**Inclose postage.**

Correspondence, to be sure of receiving attention, should have return postage inclosed.

**Scope of the ex-  
aminations.**

The examination is on 25 specimens of crude drugs, 50 questions on materia medica and pharmacy each, 25 questions on chemistry, and 10 to 20 prescriptions. The examinations are all written. The questions are alike to all candidates for Registered Pharmacists and Assistants. The only difference is that the Registered Pharmacist must make a greater per cent. than the Assistant. Generally the examinations occupy four sessions, lasting from 3 to 4 hours each, depending on the proficiency of the candidate.

**Alike for phar-  
macists and  
assistants.**

**Annual fee to be  
paid by pharma-  
cists and assist-  
ants.**

Each Registered Pharmacist or Registered Assistant, who desires to continue the practice of his profession, shall annually, after the expiration of the first year of his registration, during the time he shall continue in such practice, on such date as the Board of Pharmacy may determine [Dec. 18th], pay to the said Board a registration fee to be fixed by the Board, but which shall not exceed one dollar for a Pharmacist, or fifty cents for an Assistant, for which he shall receive a renewal of said registration. Every person receiving a certificate under this act shall keep the same conspicuously exposed in his place of business. Every Registered Pharmacist or Assistant shall, within ten days after changing his place of business or employment, as designated by his certificate, notify the Secretary of the Board of his new place of business. If any Pharmacist or Registered Assistant shall fail or neglect to procure his annual registration, or to comply with the other provisions of this section, his right to act as such Pharmacist or Assistant shall cease at the expiration of ten days. The renewal fee is \$1.00 for registered pharmacist, and 50 cents for an assistant.

**Notification of  
change of ad-  
dress.**

**Forfeiture of  
certificate.**

# AN ACT

*To regulate the practice of pharmacy in the State of Michigan.*

(ACT NO. 134, LAWS OF 1885.)

SECTION 1. THE PEOPLE OF THE STATE OF MICHIGAN ENACT, That the Governor with the advice and consent of the Senate shall, within thirty days after the passage of this act, appoint five persons and annually thereafter one person from among such competent pharmacists in the State as have had ten years' practical experience in dispensing physicians' prescriptions who shall constitute the Michigan Board of Pharmacy. The term of office of said five persons shall be so arranged that the term of one shall expire on the thirty-first day of December of each year, and all appointments made thereafter shall be for the term of five years.

Appointment of members of board of pharmacy.

SEC. 2. The said board shall within thirty days after its appointment, meet, and organize by election of a president and secretary, from its own members who shall be elected for the term of one year, and shall perform the duties prescribed by the board. It shall be the duty of the board to examine all applications for registration submitted in proper form; to grant certificates of registration to such persons as may be entitled to the same under the provisions of this act; to investigate complaints and to cause the prosecution of all persons violating its provisions; to report annually to the Governor, and to the Michigan Pharmaceutical Association upon the condition of pharmacy in the State, which said report shall also furnish a record of the proceedings of the said board for the year, and also the names of all pharmacists duly registered under this act; the board shall hold meetings for the examination of applicants for registration, and the transaction of such other business as shall pertain to its duties, at least once in four months, said meetings to be held on the first Tuesdays of March, July, and November in each year; shall make by-laws for the proper fulfilment of its duties under this act, and shall keep a book of registration in which shall be entered the names and places of business of all persons registered under this act, which book shall also specify such facts as said person shall claim to justify their registration. The records of said board, or a copy of any part thereof, certified, by the secretary to be a true copy, attested by the seal of the board shall be accepted as competent evidence in all courts of the State. Three members of said board shall constitute a quorum.

Meeting, organization and election of officers of

Duty of

Report of

What to contain.

Meeting for examination of applicants, etc.

Records of, evidence in State courts.

Quorum.

SEC. 3. The secretary of the board and the treasurer thereof, if such separate office be created, shall receive a salary, which shall be fixed by the board; they shall also receive the amount of their traveling and other expenses incurred in the performance of their official duties. The other members shall receive the sum of three dollars for each day actually engaged in this service, and all legitimate and necessary expenses incurred in the performance of their official duties. Said salaries, per diem and expenses shall be paid from the fees received under the provisions of this act.

Salary, etc., of secretary and treasurer.

Of other members.

## LAW RELATIVE TO PHARMACY.

**How paid.** other expenses above provided for, shall be paid into the State treasury at the end of each year, and so much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof, if, in any year, the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the Board of State Auditors and to the Michigan Pharmaceutical Association, of all moneys received and disbursed by it pursuant to this act.

**Disposal of excess of receipts above expenses.**

**Annual accounting.**

**Certificate as registered pharmacist, to whom granted and how.**

**SEC. 4.** Every person who shall, within three months after this act takes effect, forward to the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State at the time this act takes effect, in the preparation of physicians' prescriptions, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist: PROVIDED, That in case of failure or neglect to register as herein provided, then such person shall, in order to be registered, comply with the requirements provided for registration as a licentiate in pharmacy hereinafter described.

**Proviso.**

**SEC. 5.** No person other than a licentiate in pharmacy shall be entitled to registration as a pharmacist, except as provided in section four. Licentiates in pharmacy shall be such persons, not less than eighteen years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the board a fee of three dollars: PROVIDED, That in case of the failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within one year. The said board may grant certificates of registration without further examination to the licentiates of such other boards of pharmacy as it may deem proper upon a payment of a fee of two dollars.

**Licentiate in Pharmacy.**

**Requirements prior to examination.**

**Proviso.**

**Certificates to licentiates of other boards.**

**SEC. 6.** The said board may grant, under such rules and regulations as it may deem proper, at a fee not exceeding one dollar, the certificate of registered assistant, to clerks or assistants in pharmacy, not less than eighteen years of age, who at the time this act takes effect shall be engaged in such service in this State, and have been employed or engaged two years or more in the practice of pharmacy, but such certificates shall not entitle the holder to engage in such business on his own account, or to take charge of or act as manager of a pharmacy or drug store.

**Registered assistant.**

**SEC. 7.** Each registered pharmacist, or registered assissant, who desires to continue the practice of his profession, shall annually, after the expiration of the first year of his registration, during the time he shall continue in such practice, on such date as the board of pharmacy may determine, pay to the said board a registration fee to be fixed by the board, but which shall not exceed one dollar for a pharmacist, or fifty cents for an assissant, for which he shall receive a renewal of said registration. Every per-

**Annual fee to be paid by pharmacists assistants.**

## LAW RELATIVE TO PHARMACY.

spicuously exposed in his place of business. Every registered pharmacist, or assistant, shall, within ten days after changing his place of business or employment, as designated by his certificate, notify the secretary of the board of his new place of business. If any pharmacist or registered assistant shall fail or neglect to procure his annual registration, or to comply with the other provisions of this section, his right to act as such pharmacist or assistant shall cease at the expiration of ten days from the time notice of such failure to comply with the provisions of this section shall have been mailed to him by the secretary of said board.

Certificate to be displayed conspicuously.

Notification of change of address.

Penalty for failure to procure annual registration.

SEC. 8. All or any registration obtained through false representations shall be void, and the board of pharmacy may hear complaints and evidence, and may revoke such certificates as it may deem improperly held.

Registration obtained by false representations, revokable.

SEC. 9. Any proprietor of a pharmacy who, not being a registered pharmacist, shall, ninety days after this act takes effect, fail or neglect to place in charge of such pharmacy a registered pharmacist, or any such proprietor who shall by himself, or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines, or poisons, in his store or place of business, except by or in the presence and under the supervision of a registered pharmacist, or except by a registered assistant; or any person, not being a registered pharmacist, who shall take charge of or act as manager of such pharmacy or store, or who, not being a registered pharmacist or registered assistant, shall retail, compound, or dispense drugs, medicines, or poisons, or any person violating any other provision of this act to which no other penalty is herein attached, shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than ten nor more than one hundred dollars, and in default of payment thereof, shall be imprisoned not less than ten days, nor more than ninety days, or both such fine and imprisonment, in the discretion of the court.

Penalty for compounding etc., or allowing compounding, etc., of drugs, etc., by other than registered pharmacists, etc.

SEC. 10. Nothing in this act shall apply to, or in any manner interfere with, the business of any practicing physician who does not keep open shop for retailing, dispensing or compounding of medicine and poison, or prevent him from supplying to his patients such articles as may seem to him proper, nor with the vending of patent or proprietary medicines by any retail dealer, WHO HAS BEEN IN SUCH BUSINESS THREE YEARS OR MORE, nor with the selling by any person of drugs, medicines, chemicals, essential oils and tinctures which are put up in bottles, boxes, packages, bearing labels securely affixed, which labels shall bear the name of the pharmacist or druggist putting up the same, the dose that may be administered to persons, three months, six months, one year, three years, five years, ten years, fifteen years and twenty-one years of age, and if a poison, the name or names of the most common antidotes, of copperas, borax, blue vitriol, saltpeter, pepper, sulphur, brimstone, Paris green, liquorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, glycerine, Glauber salts, epsom salts, cream tartar, bi-carbonate of soda, sugar of lead and such acids as are used in coloring and tanning, nor with the selling of paregoric, essence of peppermint, essence of ginger, essence of

Not apply to Physicians not keeping open shop.

## LAW RELATIVE TO PHARMACY.

Certificates as registered pharmacist, to whom granted and how.

of tolu, syrup of squills, spirits of camphor, number six, sweet spirits of nitre, laudanum, quinine, and all other preparations of cinchona bark, tincture of aconite, and tincture of iron, compound cathartic pills, or quinine pills, nor with the exclusively wholesale business of any dealer: PROVIDED, That every person who shall within three months after this act takes effect forward to the board of pharmacy, satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, in the preparation of physicians' prescriptions, three years next previous to the second day of June, 1885, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist. AND PROVIDED FURTHER, That the said board may grant, at a fee not exceeding one dollar, to such person not less than sixteen years of age, who shall pass a satisfactory examination touching their competency, before the board of pharmacy, the certificate of registered "assistant" but such certificate shall not entitle the holder to engage in business on his own account or to take charge of or act as manager of a pharmacy or drug store.

Registered assistants by examination.

Adulteration forbidden.

A misdemeanor.

Penalty for

Action of board upon complaint being made.

Exempt from jury service.

Repealing clause.

SEC. 11. No person shall add to or remove from any drug, medicine, chemical, pharmaceutical preparation, any ingredient or material for the purpose of adulteration or substitution, which shall deteriorate the quality, commercial value or medicinal effect, or which shall alter the nature or composition of such drug, medicine, chemical, or pharmaceutical preparation, so that it will not correspond to the recognized tests of identity or purity. Any person who shall thus willfully adulterate or alter, or cause to be adulterated or altered, or shall sell or offer for sale, any such drugs, medicine, chemical, or pharmaceutical preparation, or any person who shall substitute, or cause to be substituted, one material for another, with the intention to defraud or deceive the purchaser, shall be guilty of a misdemeanor, and be liable to prosecution, under this act. If convicted he shall be liable to all the costs of the action, and for the first offense be liable to a fine of not less than ten dollars nor more than one hundred dollars, and for each subsequent offense, a fine of not less than twenty-five dollars nor more than one hundred and fifty dollars. On complaint being entered the board of pharmacy is hereby empowered to employ an analyst or chemist, whose duty it shall be to examine into the so-called adulteration, substitution, or alteration and report upon the result of his investigation; and if said report shall be deemed to justify such action the board shall duly cause the prosecution of the offender, as provided in this act.

SEC. 12. The senior pharmacist of every house dispensing and compounding medicines, registered under this act, shall be exempt and free from all jury duty in the courts of this State.

SEC. 13. All acts and parts of acts in conflict with the provisions of this act are hereby repealed.

Approved June 2, 1885.

NOTE - Section 10 in this Act is the amended section entitled "A."



PROCEEDINGS OF THE SIXTEENTH  
ANNUAL MEETING

OF THE

MICHIGAN STATE

Pharmaceutical Association,

Held AT

PORT HURON, AUGUST 2, 3, 4, 1898,

ALSO

CONSTITUTION AND BY-LAWS, AND  
ROLL OF MEMBERSHIP.

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*Michigan State Board of Pharmacy  
and Pharmacy Law.*

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CHARLES F. MANN, SECRETARY,  
845 THIRD AVENUE,  
DETROIT, MICHIGAN.

***Next Place of Meeting, JACKSON,  
Aug. 15-16-17, '99.***

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**OFFICERS 1898-99.**

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**PRESIDENT:**

John J. Sourwine, Escanaba.

**VICE-PRESIDENTS:**

H. C. Knill, Jr., Port Huron, 1st.

M. Reidy, Corunna, 2nd.

E. E. Calkins, Ann Arbor, 3rd.

**SECRETARY:**

Charles F. Mann, Detroit.

**TREASURER:**

John S. Bennett, Lansing.

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**STANDING COMMITTEES 1898-99.**

**EXECUTIVE COMMITTEE:**

E. F. Phillips, Armada.

O. Eberbach, Ann Arbor.

D. E. Prall, Saginaw.

E. J. Rodgers, Port Huron.

A. L. Walker, Detroit.

**TRADE INTERESTS COMMITTEE:**

***For Three Years:***

John E. Peck, Grand Rapids.

A. H. Webber, Cadillac.

***For Two Years:***

E. F. Phillips, Armada.

A. C. Schumacher, Ann Arbor.

***For One Year:***

C. N. Anderson, Detroit.

J. K. Clark, Blissfield.

O. Eberbach, Ann Arbor.

**PHARMACY AND QUERIES COMMITTEE:**

Prof. A. B. Prescott, Ann Arbor.

Dr. A. B. Lyons, Detroit.

D. M. Russell, Grand Rapids.

**LEGISLATION COMMITTEE:**

A. H. Webber, Cadillac.

James J. Baird, Lansing.

H. J. Brown, Ann Arbor.

**ADULTERATION COMMITTEE:**

Prof. A. B. Stevens, Ann Arbor  
C. C. Sherrard, Detroit.  
J. O. Schlotterbeck, Ann Arbor.

**SPECIAL COMMITTEE ON REVISION OF PHARMACY LAW:**

O. Eberbach, Ann Arbor.  
F. W. R. Perry, Detroit.  
E. F. Phillips, Armada.

**SPECIAL COMMITTEE ON INVESTIGATION OF MUTUAL MANUFACTURING:**

A. L. Walker, Detroit.  
Dr. Geo. J. Ward, St. Clair.  
Ed. T. Rodgers, Port Huron.

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**DELEGATES:**

**AMERICAN PHARMACEUTICAL ASSOCIATION.**

Dr. A. B. Lyons, Detroit.  
Prof. A. B. Prescott, Ann Arbor.  
Prof. A. B. Stevens, Ann Arbor.  
J. W. T. Knox, Detroit.  
Geo. Gundrum, Ionia.

**OHIO PHARMACEUTICAL ASSOCIATION.**

C. N. Anderson, Detroit.

**INDIANA PHARMACEUTICAL ASSOCIATION.**

F. E. Westervelt, Grand Rapids.

**ILLINOIS PHARMACEUTICAL ASSOCIATION.**

Dr. P. E. Witherspoon, Benton Harbor.

**WISCONSIN PHARMACEUTICAL ASSOCIATION.**

O. E. Stafford, Marquette.

**NATIONAL WHOLESALE DRUGGISTS' AND PROPRIETARY ASSOCIATION OF AMERICA.**

John J. Sourwine, Escanaba.  
C. N. Anderson, Detroit.

reference to doses, source of drugs, parts used in medicinal preparations, antidotes, and treatment in case of poisoning; to be able to identify specimens of crude drugs, give their names in English and Latin, therapeutic classification, etc.

No sample questions are sent to anyone.

Application blanks and affidavits.

Application blanks for examination and blank affidavits should be obtained from the Secretary. When writing for blanks state whether application blanks are for registered pharmacist or assistant. When in need of blank affidavits, state what they are needed for.

Application: when to be filed.

Applications for the examination must be filed with the Secretary at least one week before the examination.

Fee must be sent with application.

The fee must accompany the application in all cases; \$3.00 for registered pharmacist, and \$1.00 for assistant.

Rule 19.

The Secretary is instructed to use all lawful means to enforce the proper observance of the Pharmacy Law, and cause the prosecution and conviction of persons violating its provisions.

Violations of the pharmacy act.

Complaints of violations of the pharmacy law should be made to the Secretary of the Board of Pharmacy. The Secretary will not reveal the name of the complainant. The complaint should not be made on conjecture or hearsay. The Secretary cannot take notice of cut rate, rivalry, or competition in business. Where a person or firm violates the law, and the Secretary believes they are doing it ignorantly, he writes the reported violator, making it known to him that complaint is entered. If he promises to reform, and does so, or abstains from violation, that ends the matter. In case parties are willfully violating the law, the Board sends its attorney to investigate the case, and if necessary he enters complaint with the prosecuting attorney. The Secretary will esteem it a favor to have all bona fide cases reported.

Responsibility of proprietor.

It is erroneously supposed that the proprietor of a drug store is responsible for the acts of the unregistered clerk. The only one that can be prosecuted or fined is the offending unregistered clerk, or proprietor, if he is unregistered. Another error that many druggists entertain is that the pharmacy law was enacted for the druggists' protection, advantage or benefit. Such is not, however, the case. The law is in the interest, protection and welfare of the People of the State of Michigan.

Object of law.

Liquor law violations.

The Board of Pharmacy does not assume the prosecution of violations of the liquor law. All such complaints should be made to the prosecuting attorney of the county.

Rule 9.

Parties who apply before the Board for examination for a certificate as Registered Pharmacist, in case they fail to pass a satisfactory examination for such certificate, shall, if they so desire, be granted, on the payment of one dollar, a certificate as Registered Assistant Pharmacist, provided they have passed such

an examination as the Board shall deem entitles them to such certificate, and that the money sent with the original application for examination as a Registered Pharmacist, shall be held to their credit for a second examination as Registered Pharmacist at any time within a year from date of said examination, as required by Section 5, Act 134, laws entitled "An Act to Regulate the practice of Pharmacy in the State of Michigan."

Parties failing on examination for pharmacist may become assistants.

Resolved, That any person applying to the Board for examination for certificate as Registered Assistant Pharmacist, in case he pass a satisfactory examination, and make the percentage required of Registered Pharmacists, may, on furnishing affidavit showing that he has had at least three years' experience compounding drugs in a retail drug store, under the supervision of a Registered Pharmacist, be granted, on payment of the required fee of a Registered Pharmacist, a certificate of a Registered Pharmacist.

Rule 20.

Candidate for assistant may become a registered pharmacist

Resolved, That the Board of Pharmacy has not the power to reinstate any person who fails or neglects to renew his or her annual registration, as provided in Section 7 of the Pharmacy act—Act No. 134, Laws of 1885, entitled "An Act to regulate the practice of Pharmacy in the State of Michigan."

Rule 21.

Board has no power to reinstate.

Resolved, That applications for examination must be made out from some city, town, village or place in Michigan.

Rule 22.

Resolved, That all applicants for examination as Registered Pharmacists must have had at least three years' actual experience compounding drugs in a retail drug store, under the supervision of a Registered Pharmacist; and all applicants for examination as Registered Assistant Pharmacists must have had at least two years' actual experience compounding drugs in a retail drug store, under the supervision of a Registered Pharmacist.

Rule 23.

Length of experience required.

The time spent in a recognized College of Pharmacy shall be counted the same as time spent in a retail drug store, but not more than two years of such college work shall be counted as actual experience for a Registered Pharmacist, nor more than one year for a Registered Assistant Pharmacist: Provided, That the Registered Pharmacist must have had at least two full college years' study, and the Registered Assistant Pharmacist at least one full college year's study, to be entitled to such credit for actual experience. The college year shall consist of not less than ten hours class work and fifteen hours laboratory work a week, and of nine calendar months

Time spent in college.

A graduate of a recognized College of Medicine, who has practiced medicine three years, writing prescriptions, or putting up his own medicines, or both, shall be considered qualified to take the examination for Registered Pharmacist; and one who has practiced medicine as beforementioned, two years, shall be considered qualified to take the examination for Registered Assistant Pharmacist.

Rule 24.

Physicians qualified to take examination.

"I understand that the object of this gathering is in part for business, and in part for social intercourse, and I hope this occasion will be one of benefit to your organization, and of enjoyment to those who are assembled here.

"At this season of the year it is a pleasure to be relieved from the routine, care and annoyance of business, and to devote a few days to sociability and recreation; and, there is no place that is more suitable for such a gathering than this city, with its attractive surroundings; and, there is no locality which would or which could appreciate the honor conferred upon it by your presence more than we do.

"Upon the escutcheon of our State is the motto, *"Si quaris peninsulam amoenam circumspice."* All that is required by residents of this State, as pointed out in this motto, if they seek a beautiful peninsula is to look about them.

"The pioneers who located in this territory, surrounded by the great lakes, when it was covered by dense forests, as they gazed upon the beautiful landscape recognized the fact that they had selected a magnificent peninsula as their home.

"Since this motto was placed upon the escutcheon of the State, the forests have fallen and faded away, and towns, villages and cities have arisen in their place, and populous communities spread over the greater portion of the State.

"Along the rivers and upon the shores of the lake are thickly scattered, tasty cottages, and attractive summer resorts, and you can with joy assemble, as you have done, to rejoice over the progress of your country and to congratulate one another upon the prosperous condition of financial affairs, and business prospects, and take such action in regard to matters in which you are engaged as may be required in order that your avocations may keep pace with the rapid advancement that is being made in the progress of all business enterprises and callings.

"We hope you will pardon us if when you are viewing the sights of our city, or indulging in the pleasures of a ride upon the river, or strolling in our parks, we appear to be vain of the many advantages, both natural and artificial, which this locality possesses for our citizens and those friends who may visit us from neighboring towns at this season of the year.

"It is a great pleasure to us to have guests from abroad come here and enjoy our hospitality, and we hope that everything will be done to make your stay among us as pleasant as possible.

"The people of this country have much to be thankful for at the present time. The prospects are that we will have one of the most bountiful harvests that has ever been known. In addition, we have been successful in the war undertaken on behalf of Cuba with Spain, and circumstances have so shaped themselves that undoubtedly hereafter we shall have greater opportunities for extensive trade with foreign nations than we have heretofore enjoyed, and our resources for disposing of our surplus products will be largely increased. Never before in our history have the people of the United States occupied so proud and prominent a position among the nations of the world as they do at the present time, and every American has reason to be proud that he is a

citizen of this great nation, and that he forms a part of such a grand government.

"We have reason to rejoice and boast of the achievements of our army and our navy. (Applause.) What they have accomplished is more than the most sanguine had reason to anticipate would be the result of their efforts in so short a period of time, with such hurried preparations and under such unfavorable circumstances.

"Indeed, as a people, our cup of happiness is full to overflowing, and at every gathering of citizens it is seen upon the countenances of all expressions of happiness and exultation.

"When one reflects upon what mighty progress this country has made within the recollection of those who are as yet young men and women, we can but wonder what changes still await us.

"Shall we go on as a great moral, intellectual, industrious people, continuing to increase and to improve; or in a short span in the vast cycle of time, shall we be added to the list of those republics that have arisen, flourished for a period and then fallen, leaving nothing but the fragments of their magnificent ruins as an evidence of what they have been.

"I have faith in the stability of our institutions, and in the character of the people that is now being moulded, and in the stock that is likely to arise from such an ancestry. No country has existed that was taught as we have been from our infancy to regard virtue and intelligence as essential to the preservation of the commonwealth. No people has existed that possessed such a means of educating the masses by a system of free public schools and colleges, affording such opportunities as we now offer to our youth. No nation has arisen that had such facilities for transportation and communication over all parts of its domain, and which affords such advantages for travel at the lowest possible expense from one end of the continent to the other, and gave opportunities to contrast the benefits of the different forms of government with those of their own, to perceive how essential it is that the rights of individuals should be regarded and protected in order that the rights of the community may be preserved.

"And, I believe, with such facilities for education, such opportunities for intercourse between all parts of the nation, such a high regard for morality and integrity, that the people of this country will, from this time on, fully comprehend the blessings of a government of the people, which is honestly administered by the people for the benefit of the people.

"I sincerely hope that this may be an enjoyable occasion for your Association.

"I am familiar with the law under which I understand it is organized. I know that its object and its aims are meritorious, and I trust that its future career may be prosperous." (Applause.)

The President—"In response to this very hearty welcome I call upon Mr. D. E. Prall, of Saginaw, to respond in behalf of the Association."

Mr. Prall:

Mr. Mayor, and our Port Huron Friends—"It is my simple duty to accept, on behalf of the Michigan State Pharmaceutical Association, this, your warm welcome. We have met for the discussion of matters that interest our profession, and the value of what we learn depends on the amount of careful thought and the accumulation of work that has been put on the papers and discussions, and not on mere mechanics; something more than to come within speaking range, to open our mouths and eject words, is necessary. And more than this, all this careful thought and steady work which we expect to receive the benefits from is necessary to give them the greatest value.

"Recently I sat for a photograph, and the artist requested me to moisten my lips and look pleased, and not until he told me a beautiful story and funny anecdotes did he seem to produce the expression which he expected. We expect this week to photograph this Association, and your memories of the picture will be pleasing as they reflect the expression of your kind welcome." (Applause.)

Vice-President Sourwine called to the chair.

The Vice-President—"We will now listen to the President's address."

#### PRESIDENT WEBBER'S ADDRESS.

Gentlemen of the Michigan State Pharmaceutical Association:—"Another year with its joys and its sorrows, its reverses and successes, has passed since we met as an Association, and it has been the shortest in all the history of our lives, but not as short as the one we have now entered upon, or of those that will follow.

" 'A wonderful stream is this river of time,  
As it runs through the realm of tears.  
With a faultless rythm and a musical rhyme,  
And a broader sweep, and a surge sublime,  
As it blends with the ocean of years.'

"I believe that the realization of the shortness of time and the brevity of human life have a tendency to bring humanity into closer bonds of friendship, and make meetings like the one we have now entered upon all the more pleasurable. Personally, it affords me great pleasure to meet so many of you here at this time. I thoroughly enjoy such gatherings, where we can, for a short time, lay aside cares, trials and humdrum experiences of an active business or professional life, and renew our age in healthful, social, and intellectual occasions like this. And yet, as I contemplate the joys and pleasures experienced in meetings of this nature, my mind wanders back to the beginning of time, and I am overcome with awe when I think of how much history it has taken to make these meetings possible. Egypt, Judea, Greece, Rome and Germany, all the centuries from Moses down to the present time, have united in the formation of gatherings like this. In fact, the industry, the science, the art, the geog-



raphy, the commence, the religion of the whole human family are repeated in every human combination, and what we do and see here to-day is inexplicable without reference to all that has gone before. This interlacing of the ten thousand threads which necessity weaves into the production of one single phenomena is a stupefying thought. One feels one's self in the presence of law itself and we feel like offering up to the all wise ruler of this universe our heartfelt thanks that he has allowed us a glimpse of the wonderful workings of nature. But we are apt to inquire, what matters this brevity of human life, seeing that the generations, the centuries and the worlds themselves are occupied forever with the ceaseless reproduction of the hymn of life, in all the one hundred thousand modes and variations that go to make up the universal symphony.

"To contemplate and adore, to receive and give back, to have done what we could for the betterment of mankind, to have moved, perhaps, one grain of sand is all that is expected of mortals such as we. But to take a part no matter how small and insignificant that part may be, is motive enough for our existence, and gatherings like this, are the carrying out, and fulfilling, the original plan of an all wise creator. And we, who are here to-day ought to feel thankful that we are permitted to take an active part in these proceedings. And when I think of that large army of stay-at-home pharmacists who never meet with us, nor aid us in any way; instead of a feeling of resentment, I am more inclined to sympathize with them over their great misfortune and lost opportunities, but I trust that they will at least possess enough interest in their profession to read the proceedings of this meeting, for I want to remind those who remain away through indifference and lack of interest in this Association, with a feeling that their condition is beyond remedy, that this same indifference is one of the causes of the demoralized condition of the drug trade in Michigan to-day. If all druggists in this State had been a unit in their efforts to remedy the present day evils of the drug trade, it would have been accomplished long ago. This Association is constantly criticised for not accomplishing more in the way of needed reforms by the very ones who never help us by their presence, sympathy or money, but gentlemen, is it any wonder we have not been more successful when our membership is considered? If I am rightly informed this Association only represents 5% of the drug trade of this State, then how in the name of common sense can we be expected to bring about reforms affecting the whole? That citizen who stays away from the primaries has no right to criticize because some disreputable man is placed in nomination for some responsible office, no more has that druggist a right to criticize this Association for what it has not accomplished, when he remains at home and never aids it by his influence or money. The place for the critic is at our meetings, and we invite them to come and take an active part in our proceedings, and if we had them all as members of this Association it would not be necessary to devise means for the increase of our membership.

"There is a large class of druggists in this State who never meet with us and have the best of reasons to offer for their ab-

sence. I mention them with a deep feeling of sympathy for their condition, knowing as I do, that in their efforts to make a living at their chosen profession, they are obliged to run their store without assistance of any kind for sixteen hours a day, making it impossible for them to leave even for a short time. Naturally, someone is responsible for a trade condition that obliges a man in any business to confine himself two-thirds of the time to his store in order to eke out an existence for himself and family. Perhaps this Association is at fault for not having accomplished more in the way of needed reforms during the past. I cannot help but feel that we are not beyond criticism, but this is no time or place to mourn over what might have been. It is our duty as individuals and as an Association, to better our condition. To accomplish very much as an association we must have a large membership. This is imperative, and let me urge upon you to suggest some means for bringing about this result. It would seem as though it would not be much of a task to get more than a membership of 200 out of a total of 3,000 registered pharmacists. I presume that the large falling off in members during the past few years is mainly due to the changing conditions of pharmacy. We are now passing through what might be called a transitory stage and the purely mercantile and business side of our profession wholly absorbs the average retail druggist. In his efforts to make an honest living he is forced to carry in stock the numerous sidelines found in nearly every drug store, especially the country ones. Necessarily, the professional and scientific part is neglected and this lack of work and study in matters pertaining to the purely professional side of his business tends to lessen his interest in an Association that appears to him to be wholly absorbed in the scientific. I am a firm believer in the fact that out of the present transition stage in which the retail druggist of the United States is now passing, the purely professional part or higher pharmacy will be separated (as it should be), from the commercial, and rise to a higher and loftier plane, without hindrance or incumbrance of any kind, but until this ideal condition is reached we must take conditions as they exist, and if we find that the larger percentage of the retail druggists are more interested in the commercial than the scientific, then it is the bounden duty of this Association to busy itself with that which interests the greater number. It seems to me that a large percentage of the retailers misapprehend our motives, and if in some way we could impress them with the fact, that, as an Association, we are doing our level best to help them in a commercial way, it would place this Association in a different light, and, perhaps, make many new members. I believe that you will all agree with me that the common lot of the average retail druggist of the present time is a hard one. We are ridiculed and criticised on all sides. Our more scientific brethren complain because we do not manifest that degree of interest and enthusiasm in purely scientific matters that he does. I confess that the enthusiasm is lacking, but the druggist is not at fault. I think that it is generally conceded that no one mind can successfully carry on two lines of business at one and the same time, and a twenty-year experience in the retail drug business, with a more or less intimate association with a great many of my professional brethren, has proven to me conclusively that

the average retailer is kept so everlastingly busy in the scramble for daily bread that he does not have much time left for the scientific part of his profession. Bacteriology, physiological chemistry and microscopy are pleasurable fields for him to explore, and fortunate, indeed, is he who has leisure to pursue them; but paramount to this is bread and butter, and many are they who are not so particular as to the quality and kind. This is a minor criticism as compared to others. Our very appearances and dispositions are called into question, but is it any wonder that we are slim, slender, raw boned, hungry looking, cranky in our dispositions when once the details of our business life is considered: when the labor we are obliged to perform in our efforts to eke out a bare existence is taken into consideration? I would like to know if there is any thing about the selling and licking of postage stamps to make one fat? Will running to the telephone and directory help to put flesh on our bones? Is there anything about scrubbing a floor that is elevating? Does the answering of innumerable questions tend to improve our dispositions? Do you think that the selling of patents at actual cost helps to make us agreeable? Is it not a difficult thing to smile and look pleasant when we are constantly being called by individuals and newspapers, robbers and extortioners, because we sell a package of salts or senna at 5 cents that perhaps cost us one and one-half cents, or a pound of sulphur at 10 that cost us 3, when, as a matter of fact, if what we received from the sale of small articles was all profit, the entire day's sales would not much more than pay us day wages. Is it any wonder that we are what we are, when the trials and tribulations of our business life are considered? These grievances of ours and our deplorable condition naturally leads me up to the time-worn subject of price cutting, and, gentlemen, I shall not criticise or feel that you are showing any disrespect to me if you should desire to leave the room while I am treating this subject. The mere mention of it brings a blush to my cheek, to think that our efforts through all the years of the past have been so unsuccessful. The subject has been treated by every President of this Association since its organization, and I will venture to say by the Presidents of all other state associations as well. We have passed resolutions, appointed special committees to meet with the wholesalers and the manufacturers, but the cut rate war goes merrily on. When the matter has been presented to some of the larger manufacturers we have been politely advised to go home and attend to our own little business. They said they understood perfectly how to manage theirs, and judging them by their large accumulations, I guess they did.

"For sixteen years we have been trying to adjust the matter, but it has grown worse steadily. On every occasion we are informed of the undying love the patent medicine man has for the retailer, but this love ends in platitudes and soft spoken words. They have done nothing but raise the price on some of their preparations and added insult to injury by trying to make us believe that it was in the interest of the retailer. They have opposed all legislation that was designed for the better protection of the public against unhealthful and dishonest compounds. They have indorsed the methods established under the title of a "National Advertiser," whose object is in denouncing the retailer

who sells his own product in competition with patents with unknown formulas. They publicly boast of their success in controlling legislation in their own interests. They tell us that they would gladly restore prices if they could. You don't believe them, nor do I. Their seeming interest in our welfare is a delusion and a snare. What they are after is the Almighty Dollar, and if the department store and junk shop could dispose of more of their preparations than we could, they would drop us too quick. Since a St. Louis druggist paid a fine of \$200 for selling a certain patent after an injunction had been served upon him restraining him, the argument that they cannot restrain the cutter has fallen through. All this is said in no spirit of criticism. My desire is to state facts as they exist. Perhaps we would do much the same if we were placed in their position, but we all agree that something ought to be done. The question is, What shall it be? I realize with you that the tree is deeply rooted and that we have eaten of its fruit so long and been protected by its branches that, naturally, we have hesitated to destroy it until practically it has destroyed us. The patent medicine business has grown enormously during the past few years, and is thoroughly identified with the drug trade, and the public is educated to purchase these supplies from them. The manufacturer recognizes this, knowing full well that his sales would diminish one-half if sold only by the department store and the junk shops, and still he does nothing to alleviate price cutting, fully believing, as he has a right to, that we will always be the same meek, subservient tools that we have always been. Gentlemen of the Michigan State Pharmaceutical Association, we have only ourselves to blame if we do not take such action at this time as will remedy the cut rate evil. Now is the time to act, and I implore you not to wait another year before beginning an aggressive movement against price cutting. During the past year I have given the subject of mutual manufacturing some thought and I am convinced that it is a movement in the right direction. Possibly a stockholder in a company of this kind may not realize as much profit as he might reasonably expect, but every such company organized takes from the patent medicine man some of his trade and in due time he will be forced to give us such protection as will be necessary to alleviate the price cutting evil; or, perhaps the sales of our own preparations will have reached such a magnitude that we will be indifferent as to what the patent medicine man does. The mutual manufacturing plan has been more or less successful in other states, and why not try it in Michigan? I earnestly recommend it for your consideration, believing that it can be made successful financially as well as raising the drug business to a higher professional plane and give us living profits that would be very acceptable to the long-suffering druggists of this State.

"As another means for bettering our condition, I would suggest that a greater effort be put forth in cultivating the physician. I am well aware, that this, like price cutting, is an old subject, but personal experience has taught me that it pays to have the good will and patronage (no matter how small it may be), of the physician. If he will not write prescriptions and insists upon dispensing his own medicine, I would try and procure his trade, just the same. Every druggist can, if he deals with reputable

houses, purchase goods at a less price than a physician's supply house will furnish them to the physician, enabling him to meet the prices of the physician's supply house and still make a small margin for himself. He must not expect to double his money, but 10 per cent. is better than none at all. I am confident that with a proper understanding of their mutual relations it would not be long before the physician would realize that prescription writing was, after all, the best method for him to pursue, both from a financial and professional standpoint. It would also seem to me a move in the right direction if arrangements could be made for the holding of meetings at the same time and place as the State Medical Association holds theirs, having the social part of the programme in common. It would seem to me that an arrangement of this kind would bring us into closer relations, socially, and would bring about a better understanding of our mutual interests as well as create a kinder and more cordial feeling between us. I am not sure that this would be practical or feasible, but simply offer it as a suggestion for your consideration later.

"As for shorter hours for drug clerks, I have only a word to say. I have read arguments for and against shorter hours in New York City, but I do not consider that any of these hardships are applicable to drug clerks in Michigan. I do not look upon them as an overworked class and the danger to the public, in my opinion, is not one-half so great by mistakes made by overworked help as in a trade condition that forces the druggist and his help to sell all kinds of merchandise from a hairpin to a bicycle, obliging them to put up wall paper, dish pans, candy and peanuts—all within the same hour, in order to make his business pay him enough to live decently. No one appreciates the ability of the average druggist more than I do, but I do not believe that the man exists who is qualified to look after the details of a regular department store and put up difficult prescriptions at the same time and do it just as thoroughly and successfully as the one who has nothing else but the drug business to look after. I claim that the public is in more danger from mistakes made by such druggists and their help than from overworked drug clerks proper. What I would like to see is a law that obliges a pharmacist to handle pharmaceutical products and nothing else, and place him in a position where he can make an honest living without resorting to all kinds of trade under the heavens. In my opinion, the matter of early closing is one to which you can apply no general law as the same conditions do not exist in any two towns. A law that would apply and be a just one for a farming town would not and could not be made to work in a manufacturing town. It is a local question and the druggists in every town should join hands and regulate their own hours. In my own town we close every night at 8 o'clock, Saturdays excepted, and have for two years, with perfect harmony and good will on the part of all.

"The question of the organization of a National Retail Druggists' Association has been brought to my attention during the past year. Personally, I am not prepared to pass upon the wisdom of such a course. I think, however, that it is conceded by all that the regulation of the patent medicine business is purely a commercial one, and as such, naturally, out of harmony

with the prime object, and the higher aspirations of the American Pharmaceutical Association and with the scientific sensibilities of a large percentage of its members. It would seem impossible to accomplish much in a commercial way through them, so that it is quite possible that a national organization of just retail druggists, meeting perhaps at the same place as the American Pharmaceutical Association, with the one chief object in view of bettering our condition in a commercial way, could accomplish much more than any organization with a multiplicity of subjects; at any rate, it is worthy of our thought and consideration.

"You will, no doubt, receive a complete and comprehensive report from the special committee on Revision of the Pharmacy Law and I trust that the recommendations will be thoroughly discussed by this Association and such changes and additions made as may seem wise; and if the recommendations are finally adopted, as I believe they should be, we must use all possible resources to secure their passage through the next Legislature. I want to supplement a part of their report by recommending for your consideration the following changes that, in my opinion, ought to be made in our present pharmacy law. First, that this Association nominate and elect five qualified pharmacists each year, from which number the Governor shall appoint one to fill the vacancy annually occurring in the Board of Pharmacy. I am well aware that there is a strong sentiment against such a change, even among our own members, on account of its reported unconstitutionality, but inasmuch as a large percentage of other States have successfully adopted this method and from the fact that state associations are universally recognized as the proper bodies from which such recommendations should emanate, knowing, naturally, more about the qualification of candidates than any Governor could possibly know. These and many other reasons lead me to believe that it would be for the best interest of pharmacy and for the better protection of the people to ask the Legislature for this change. I would further recommend that the enforcement of that section of the liquor law relating to druggists be placed in the hands of the Board of Pharmacy, with full power to investigate and prosecute the same as all other violations of the Pharmacy Law. In my opinion, it is about time that those who prostitute the honorable profession of pharmacy by running a grog shop under the guise of a drug store be weeded out and the honest druggists be protected in their rights to use and sell liquors in their business in a legitimate manner and not be subjected to the reproach that is brought upon them and their business by the disgraceful and dishonorable acts of a few of their number. I would further recommend that the Secretary of the Board of Pharmacy be elected annually by the members of the Board of Pharmacy from some person outside the Board and that he possess the same qualifications as members of the Board, and I would suggest that this Association, when possible so to do, make the Secretary of the Board of Pharmacy Secretary of this Association also. My reason for this change is, that if that part of the liquor law applying to druggists be placed in the hands of the Board of Pharmacy it would add to their duties and would require extra service, and this could be done by said Secretary outside of the Board, and if this

same Secretary could receive the salary we pay our own, in addition to what the Board pays, it would enable him to devote his entire time to the work of the Board and would make him a valuable Secretary of this Association, for the reason that his travels through the State would bring him into personal contact with a large percentage of the druggists and enable him to better understand the plan of work necessary to make new members for this Association. I would also recommend that Sec. 6 of the Pharmacy Law of Wisconsin be made a part of our law. This section reads as follows:

"No person by himself, his servant or agent, or any other person, shall sell, exchange, deliver or have in his possession with the intent to sell or exchange, or expose or offer for sale or exchange any medicine known as patent or proprietary, or of which the formula is kept secret by the manufacturer, which contains morphine, strychnine, cocaine or any other poisons or narcotic alkaloid or drug in any quantities which the State Board of Pharmacy shall deem harmful to the life or health of the public, unless the presence of the same be distinctly shown by a label upon the bottle or package and upon the outer wrapper thereof."

"The public expects that a pharmacist and doctor should have a thorough knowledge of the science of medicine before they are allowed to practice upon the individual, and yet, for the man who prescribes for the public in a wholesale way, nothing is demanded of him, and he is allowed place on the market the most dangerous compounds without fear of the law. I trust that these recommendations and those that will be presented by the Committee or suggested by any member may merit your careful consideration.

"It will not be necessary for me to refer to the proceedings of the American Pharmaceutical Association, as Prof. Prescott was himself present, and will, no doubt, favor us with a full report.

"Nothing startling in the way of legislation affecting the druggists has occurred during the past year, with the exception of the revenue bill, and this you are no doubt, all more or less experimentally familiar with by this time. As usual, the burden falls heaviest on the druggist, but while it is not as satisfactory as we could wish, and realizing, as we do, the injustice of many of its features, yet it is a cause for congratulation that it is no worse, as it surely would have been had it not been for the persistent efforts of the druggists throughout the United States, but the placing of this burden of war revenue entirely upon the retailer by the manufacturer of patents is the grossest kind of an injustice and merits our severest condemnation, and I favor a resolution condemning such action on the part of so many of the manufacturers. Personally, I am not an advocate of the boycott, but I do feel that we are justified in pushing the sale of the preparations of those manufacturers who have been just enough to stand all or a part of the burden of the tax, as against those who have not. It also affords us another reason for pushing our own compounds, as we can better afford to stand the tax upon them than pay upon those made by selfish and unjust manufacturers. The work done by the officers and members of this

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Association will, no doubt, be reported upon later by the Legislative Committee, who had the work in charge.

"Through the rare foresight of the framers of the constitution and laws of this State that calls the Legislature together once in two years we have had a rest from the turmoils incident to the usual batch of obnoxious bills presented at every session of the Legislature. The meeting of the National Pure Food and Drug Congress, which was held in Washington March 2, allowed us two delegates, but the delegates were not forthcoming. I was unable to find any one willing to go at his own expense, and so at a late hour Prof. A. B. Prescott consented to represent this Association by letter and we, no doubt, will have a report from him later.

"Before closing this paper I wish to thank the wholesale druggists and manufacturing chemists for the ever kind and considerate treatment that, as an Association, we have received at their hands from the day we were organized to the present time. Reciprocity of interests naturally exist, and it is a great pleasure to know that we can, at all times, depend on their aid and hearty co-operation in our efforts to elevate pharmacy to a higher standard and place it on a profit paying basis. I have felt at times that perhaps we retailers have not done our part in this mutual arrangement. We have at various times requested the wholesalers not to sell some particular cutter and I believe that, without exception, the request has been granted and lived up to, and yet some of these same druggists who asked these favors purchased their drugs from drug houses who were selling to this same cutter. I believe in all fair dealings and honesty we should, as far as possible, help those who help us, and the wholesalers and the pharmaceutical chemists are the very ones who have done this.

"In speaking of the ones who have been steadfast friends of this Association, the traveling men stand in the fore front. They have ever been the life of this Association and, as a matter of fact, have made several of our meetings possible, for without them we would not have had a quorum. In behalf of the Association, I thank them for their untiring efforts to make our meetings a success. We fully appreciate what they have done and I hope that these same cordial relations will ever continue.

"I also desire to compliment the State Board of Pharmacy in the excellent work it is doing in behalf of the best interests of pharmacy and the better protection of the people against incompetent and unqualified druggists. This State has been exceedingly fortunate in its selection of members of the Board. It is a cause for congratulation that only pharmacists of the highest standing, both from an educational and moral standpoint, have been members of this Board. Their untiring efforts in enforcing our pharmacy laws are worthy of our praise and merit our unanimous support as an Association.

"It is cause, also, for congratulation that we have in the State of Michigan one of the foremost schools of pharmacy in the United States. The thoroughness of its work is unexcelled by any and we have just cause to be proud of it. This Association is deeply indebted to the professors of this school for the great interest they have ever manifested in this Association. Our meetings have always been honored by their presence and



their untiring efforts in behalf of the best interests of pharmacy and this Association are well known to us all, and we have every reason to be thankful to them for the faithful work they have performed for this Association. I feel very grateful to the officers of this Association for the kind treatment I have received at their hands and I especially want to thank the Secretary for the very careful, painstaking way in which he has conducted the work in his department and for the very efficient help and advice he has given at all times. It is my earnest wish that we may accomplish something of practical value and go home, feeling that our time has not been wasted. I trust this meeting will be the means of doing us all good, giving us new ideas and inspirations that will better fit us for the duties of life. Let us not be selfish or jealous of the success of others, but let us mingle together, exchange thoughts, let our minds ever be receptive to all that is best, and when we have finished our work, may it be with a feeling that it was well done.

"I thank you, gentlemen, for the honor you conferred upon me when you made me your President and for the continuous kind treatment I have received at your hands, and I beg of you to be forbearing with the errors I may make in my efforts to discharge the duties I have yet to perform."

The Vice-President—"I appoint as a committee on the President's address, Mr. Phillips, Mr. Miller and Mr. Eberbach."

The Vice-President (to the President)—"I turn the chair over to you."

The President—"If there are any members here who are not registered we will be pleased to have them register. The next thing on the programme will be the reading of the Secretary's report. We will now listen to the Secretary."

#### SECRETARY'S REPORT YEAR 1897-98.

Detroit, July 28, 1898.

To the Officers and Members of the Michigan State Pharmaceutical Association:

Gentlemen—The following is my report for the year just ending. As instructed by the Association, I edited and published the Proceedings of the '97 meeting, mailing same about the middle of October last. To give the advertisers full benefit and also to give the druggists at large an idea of our doings, I mailed a copy of the Proceedings to every druggist in the State. With considerable corresponding and soliciting I secured 24 advertisements for the Proceedings, which produced an income of \$280.00. The cost of issuing, including postage, was \$177.25, showing a net income to the Association of \$102.75.

The present active membership of the Association is 286. I have dropped from the roll for non-payment of dues and by request 124 names (this large amount is due to the fact that some of the names had been carried along until they were four or five years in arrears. In conformity to Article IV. of By-Laws, I have dropped all members three years or more in arrears.) Three members have resigned, as follows: W. F.

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Griffith, Howell; Dr. James Raizen, Trinidad, Col.; Geo. S. Davis, Detroit. We have lost two members by death, as follows: Chalmers P. Allen, West Bay City, and T. B. Kennedy, Commerce.

156 members have paid dues in full.

68 are in arrears for 1 year.

29 are in arrears for 2 years.

33 are in arrears for 3 years.

286 Total.

### CASH ACCOUNT.

#### RECEIPTS.

|                                             |          |
|---------------------------------------------|----------|
| Advertisements in Proceedings.....          | \$280 00 |
| 1898 Dues .....                             | 157 00   |
| Back Dues .....                             | 46 00    |
| Initiation Fees, Certificates and Dues..... | 22 00    |
| Amount collected for Legislative Fund.....  | 30 00    |
| Total receipts .....                        | \$535 00 |

#### PAID TREASURER.

|                            |                                    |
|----------------------------|------------------------------------|
| 1897.                      |                                    |
| Aug. 24                    | For Legislative Fund .....\$ 30 00 |
|                            | For General Fund ..... 2 00        |
| Oct. 2                     | For General Fund ..... 15 00       |
| 16                         | For General Fund ..... 108 00      |
| 27                         | For General Fund ..... 99 00       |
| 1898.                      |                                    |
| Jan. 4                     | For General Fund ..... 50 00       |
| 18                         | For General Fund ..... 116 00      |
| June 15                    | For General Fund ..... 64 00       |
| July 25                    | For General Fund ..... 46 00       |
| 27                         | For General Fund ..... 3 00        |
| 28                         | For General Fund ..... 2 00        |
| Total paid Treasurer ..... | \$535 00                           |

I have drawn orders on Treasurer as follows.

|        |                                                                                                            |
|--------|------------------------------------------------------------------------------------------------------------|
| 1897.  |                                                                                                            |
| Oct. 4 | Order No. 1—The Richmond-Backus Co., Detroit, stationery and printing .....\$ 9 95                         |
| 16     | Order No. 2—Miss Anna Schroeder, reporting '97 meeting ..... 20 00                                         |
| 16     | Order No. 3—C. F. Mann, postage, etc..... 61 79                                                            |
| 27     | Order No. 4—Wm. Graham Printing Co, Proceedings, envelopes, application blanks, receipt books ..... 132 00 |
| 1898.  |                                                                                                            |
| Jan. 3 | Order No. 5—Wm. Graham Printing Co., printing 5 75                                                         |
| June 4 | Order No. 6—Frank H. West, printing..... 2 00                                                              |
| July 1 | Order No. 7—C. F. Mann, postage, etc..... 30 56                                                            |
| 5      | Order No. 8—Wm. Graham Printing Co., printing 5 50                                                         |

|                                          |                                                                  |          |
|------------------------------------------|------------------------------------------------------------------|----------|
| 23                                       | Order No. 9—C. F. Maun, special agent Mich. Passenger Assn. .... | 5 00     |
| 23                                       | Order No. 10—C. F. Mann, salary as Secretary..                   | 225 00   |
| Total.....                               |                                                                  | \$497 55 |
| Leaving balance in Legislative Fund..... |                                                                  | 30 00    |
| Leaving balance in General Fund.....     |                                                                  | 7 45     |
| Total.....                               |                                                                  | \$535 00 |

The announcements and programs of this meeting were mailed to all the druggists in the State July 1st. This was preceded by an announcement slip distributed through the jobbers. In all, the Association has been pretty well advertised during the past year.

I have had a large amount of correspondence, particularly during the time the war revenue bill was under discussion, and since its adoption, to all of this I made best replies possible.

Respectfully submitted,

CHARLES F. MANN, Secretary.

The President—"If there is no objection I will refer the report of the Secretary to the Executive Committee."

We will now listen to the Treasurer's report.

Report read by Secretary.

#### TREASURER'S REPORT.

Grand Rapids, Mich., July 29, 1898.

#### GENERAL FUND.

##### RECEIPTS.

|         |                           |                |
|---------|---------------------------|----------------|
| 1897.   |                           |                |
| Aug. 8  | Cash from Secretary.....  | \$ 2 00        |
| Oct. 3  | Cash from Secretary ..... | 15 00          |
| 18      | Cash from Secretary ..... | 108 00         |
| 28      | Cash from Secretary ..... | 99 00          |
| 1898.   |                           |                |
| Jan. 5  | Cash from Secretary ..... | 50 00          |
| 20      | Cash from Secretary ..... | 116 00         |
| June 16 | Cash from Secretary ..... | 64 00          |
| July 26 | Cash from Secretary ..... | 46 00          |
| 27      | Cash from Secretary ..... | 3 00           |
| 28      | Cash from Secretary ..... | 2 00           |
|         |                           | <hr/> \$505 00 |
| 1897.   |                           |                |

##### DISBURSEMENTS.

|        |                                       |         |
|--------|---------------------------------------|---------|
| Oct. 8 | Order No. 1—By cash, Richmond, Back-  |         |
|        | us & Co.....                          | \$ 9 95 |
| 19     | Order No. 2—By cash, Anna Schroeder.. | 20 00   |
| 19     | Order No. 3—By cash, C. F. Mann.....  | 61 79   |
| Nov. 2 | Order No. 4—By Cash, William Graham   |         |
|        | Printing Co. ....                     | 132 00  |

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1898.

|                      |                                                          |        |          |
|----------------------|----------------------------------------------------------|--------|----------|
| Jan. 6               | Order No. 5—By cash, William Graham<br>Printing Co. .... | 5 75   |          |
| June 9               | Order No. 6—By cash, Frank H. West..                     | 2 00   |          |
| July 4               | Order No. 7—By cash, C. F. Mann.....                     | 30 56  |          |
| July 7               | Order No. 8—By cash, William Graham<br>Printing Co. .... | 5 50   |          |
| July 23              | Order No. 9—By cash, C. F. Mann.....                     | 5 00   |          |
| July 23              | Order No. 10—By cash, C. F. Mann....                     | 225 00 | \$497 55 |
| Balance on hand..... |                                                          |        | 7 45     |

### SPECIAL LEGISLATION FUND.

|                             |                             |         |
|-----------------------------|-----------------------------|---------|
| Aug. 25                     | To cash from Secretary..... | \$30 00 |
| JOHN D. MUIR,<br>Treasurer. |                             |         |

The President—"This report read by the Secretary will be referred to the Executive Committee. The next thing on the program will be the report of the Secretary of the State Board of Pharmacy, Mr. Gundrum, Secretary."

### ANNUAL REPORT OF THE SECRETARY OF THE BOARD OF PHARMACY.

Gentlemen: I herewith submit my report as Secretary of the State Board of Pharmacy for the year ending June 30th, 1898.

#### RECEIPTS.

|                                                                   |            |
|-------------------------------------------------------------------|------------|
| Balance on hand June 30th, 1897.....                              | \$ 729 00  |
| 3026 renewals of Registered Pharmacists.....                      | 3,026 00   |
| 209 renewals of Assistant Pharmacists.....                        | 134 50     |
| 178 applications for examination, at \$3 00....                   | 534 00     |
| 89 applications for examination, at \$1 00....                    | 89 00      |
| One received from Treasurer, H. B. Phelps' ap-<br>plication ..... | 3 00       |
| Total .....                                                       | \$4,515 50 |

#### DISBURSEMENTS.

|                                       |            |
|---------------------------------------|------------|
| Paid A. C. Schumacher, Treasurer..... | \$4,429 00 |
| Balance on hand June 30th, 1898.....  | 86 50      |
|                                       | \$4,515 50 |

During the year we have issued certificates to Licentiates of other Boards of Pharmacy as follows:

Emil Lehman, St. Louis, Mo.

William H. Webber, Wisconsin, Norway, Mich.

Robert Grling, Mississipp, Detroit, Mich.

Three regular examinations were held as follows:

Lansing, November 2, 3 and 4, 1897.

Grand Rapids, March 1, 2 and 3, 1898.

Star Island, June 27, 28 and 29, 1898.

Two special examinations as follows:

Sault Ste. Marie, August 24 and 25, 1897.

Detroit, January 4, 5 and 6, 1898.

Special meeting, Lansing, May 4, 1898.

The following table shows the number of persons examined and passed:

|                       | Examined   |           | Passed    |           | 50%<br>Ruling. |
|-----------------------|------------|-----------|-----------|-----------|----------------|
|                       | R. P.      | Asst.     | R. P.     | Asst.     |                |
| Sault Ste. Marie..... | 19         | 1         | 8         | 1         | 9              |
| Lansing ....          | 52         | 6         | 17        | 2         | 25             |
| Detroit .....         | 58         | 13        | 19        | 4         | 30             |
| Grand Rapids .....    | 56         | 18        | 21        | 12        | 23             |
| Star Island .....     | 57         | 15        | 24        | 6         | 27             |
|                       | <u>242</u> | <u>73</u> | <u>89</u> | <u>25</u> | <u>114</u>     |

The percentage of Registered Pharmacists passed..... .326

The percentage of Assistant Pharmacists passed..... .342

The percentage of Registered Pharmacists entitled to Assistant Certificates .....

Registered Pharmacists that failed entirely..... .161

Sixty-three complaints of violation of the Pharmacy Law have been received, forty-two of which were given Mr. A. E. Ewing, Attorney for the Board, for investigation, with the following results:

|                                                 |           |
|-------------------------------------------------|-----------|
| Fined .....                                     | 22        |
| Fined and fine remitted.....                    | 1         |
| Investigated and dropped.....                   | 19        |
| Ordered dropped by the Board.....               | 13        |
| In the Secretary's hands.....                   | 3         |
| Acquitted .....                                 | 1         |
| Complaint withdrawn .....                       | 1         |
| Sold out .....                                  | 1         |
| Case not prosecuted on advice of Pros. Attorney | 1         |
| <b>Total .....</b>                              | <b>62</b> |

Total fines and costs for the year.....\$ 269 45

To the beginning of the year, June 30th, 1897..... 2,605 43

Total fines and costs to June 30th, 1898..... 2,874 88

Legal expenses for investigation for the year..... 543 49

Expenses for previous years..... 8,018 20

**Total .....** **\$8,561 69**

Notice to cease to act as Registered Pharmacists or Assistant Pharmacists was mailed to all who had failed to renew February 1st, 1898, as ordered by the Board at the November meeting. One hundred and eight Registered Pharmacists and twenty-four Assistants were thus notified.

Eighty-two Registered Pharmacists and sixty-four Assistants failed to renew.

#### SUMMARY.

|                                                                           |       |
|---------------------------------------------------------------------------|-------|
| Registered Pharmacists in 1897.....                                       | 3,098 |
| Registered Pharmacists added in 1898.....                                 | 99    |
| Total .....                                                               | 3,197 |
| Failed to renew for 1898.....                                             | 82    |
| Total Registered Pharmacists June 30th, 1898.....                         | 3,115 |
| Failed to renew to 1897.....                                              | 1,275 |
| Failed to renew to 1898.....                                              | 82    |
| Failed to renew to June 30th, 1898.....                                   | 1,357 |
| In force to date, June 30th, 1898.....                                    | 3,115 |
| Registered number to June 30th, 1898.....                                 | 4,472 |
| Assistants in 1897.....                                                   | 311   |
| Added in 1898.....                                                        | 81    |
| Total .....                                                               | 392   |
| Failed to renew in 1898.....                                              | 64    |
| Total number of Assistants June 30th, 1898.....                           | 328   |
| Failed to renew to 1897.....                                              | 707   |
| Failed to renew in 1898.....                                              | 64    |
| Failed to renew to June 30th, 1898.....                                   | 771   |
| In force to date, June 30th, 1898.....                                    | 328   |
| Registered number to June 30th, 1898.....                                 | 1,089 |
| Total number of Registered Pharmacists in Michigan, June 30th, 1898 ..... | 3,115 |
| Total number of Registered Assistants in Michigan June 30th, 1898 .....   | 328   |
| Total .....                                                               | 3,443 |

Increase over 1897, seventeen Registered Pharmacists, and seventeen Assistants.

GEO. GUNDRUM,  
Secretary.

The President—"Gentlemen, you have listened to the report, what is your pleasure?"

Motion to accept the report and place it on file.

Carried.

The President—"According to the program the next thing is the receiving of delegates. If there is no further business that should come before this session we will now adjourn. The Secretary informs me that there is some correspondence that he thinks ought to be read at this time, and we will now listen to the Secretary."

Mr. Anderson—"I see in the program that delegates are to be received at this time. We have present Mr. Stocker, of Indianapolis, who is sent here by The Indiana Pharmaceutical Association. He comes here with some business which is probably of importance to this meeting. I would like to introduce Mr. Stocker and ask for him the privilege of the floor at the proper time."

The President—"We will be very glad to receive him at the present time."

Motion that delegates be received and accorded the privileges of the floor.

Carried.

The Secretary—"We have applications for membership as follows:

Sydney S. Smith.

David W. Paton.

Roland B. Taber.

John W. Smith.

Vincent A. Lowe.

Perley W. Hall.

Harry L. Bird.

Albert B. Lyons, M. D.

Chas. E. Jenks.

Chas. F. Hueber.

Bruno A. Herman.

Jesse F. Holden.

John J. Fabry, M. D.

Geo. T. Coppernoll.

Mrs. Florence Burch.

Chester E. Bricker.

Jos. Lohrstorfer.

E. A. Kavanagh.

Louis Pauly.

Walter E. Stephens.

Herman G. Spring.

Geo. S. Sharrard.

Wm. B. Travis.

Fred J. Williams.

Frank E. Wicks.

James J. Baird.

Chas. H. Bostick.

James W. T. Knox.

E. O. Stafford.

Arthur S. Putnam.

Ben. E. West.

Total, 31.

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This is the largest number of new applicants we have had in several years.

The President—"I suggest that the Executive Committee take up these applications so that we can act upon them at the next session."

The Secretary—"We have a communication from A. B. Merriam, Secretary of the National Wholesale Druggists' Association, notifying the Secretary of the appointment of delegates to this meeting. I have here a series of letters inviting the Association to Detroit for its next annual meeting. I have several communications from different State Pharmaceutical Associations all over the country in regard to the war revenue, and two circular letters from committees of the American Pharmaceutical Association."

The President—"Gentlemen, with your consent, I believe I will have these letters referred to the various committees and have the committees report upon them later. If there is no objections it will stand that way."

Member from floor—"Why not have some of these read?"

The President—"The reason I had for referring them to a committee was the length of some of them. There are one or two that would take three quarters of an hour to read. I thought the convention at this time would not care to spend the time in reading, and we would save time, but if it is the wish of the convention we will have them read. What is the pleasure of the convention?"

Motion to have them read.

Carried.

Letters from New Jersey, Indiana, Iowa and Minnesota Pharmaceutical Associations read by Secretary.

Secretary—"These communications from the American Pharmaceutical Association are lengthy and I think, Mr. President, as you suggested, they better be placed in the hands of the proper committee for action."

The President—"What is the wish of the Association?"

The Secretary—"By way of explanation, I will say that one of these circulars is on the advisability of making a national pharmacy law, and the other on the qualifications of licentiates for pharmacy certificates."

Motion that it be referred to Mr. Perry, Mr. Eberbach and Mr. Phillips, Special Committee, for report at next session.

Carried.



Motion that the correspondence of the Secretary be referred to the proper committees by the President.

Carried.

Mr. Parker—"The Secretary, in reading the list of applicants for membership cites two gentlemen who have done heroic work for this Association. I would like to have this Association recognize that and extend, as an association, a vote of thanks to those gentlemen who worked up this large membership in Benton Harbor and Port Huron."

Motion that the vote of thanks be extended to Messrs. Knill, of Port Huron, and Witherspoon and Hopkins, of Benton Harbor, for their work in securing the large number of applications.

Carried unanimously.

The Secretary—"I would like to speak to the members regarding the railroad tickets. I suppose a great many of us have come here with certificates showing the purchase of our tickets. In order to get reduced rates on the return trip these certificates must be signed by Mr. Clarke, a representative of the Michigan Passenger Association, who is located here in Port Huron, and by myself. Mr. Clarke will be here to-morrow evening at the hotel, between 6 and 7 o'clock, to sign these certificates. If the gentlemen will all leave their certificates with me I will see that they are properly signed and returned. We have got to have a hundred to get these reduced rates."

President—"Those gentlemen in the room who have certificates please stand up." (12.)

Adjourned until 7:30, local time.

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## SECOND SESSION.

Called to order at 7:30 p. m.

President—"The first thing in order will be the report of the Executive Committee. Mr. Stevens informs me that a part of his report is not ready, but he will report upon the new members as it is quite necessary to elect these members so that they can take part in the meeting. We will now hear from Mr. Stevens."

Mr. Stevens—"We have 31 applications that have been handed in and we have looked them over. They are duly signed by two members, and as I understand when they are reported by the Executive Committee they are elected without action by the Association. The constitution and by-laws state that members may be elected, if properly vouched for, by the members of the Executive Committee. Now I am the only member of the Executive Committee present, so I recommend that a vote be made by the Association."

The President—"That may be done by unanimous consent, if some one will make that motion."

Motion that the Secretary cast the unanimous vote of this Association for the election of these applicants.

Carried.

The President—"The next thing on the program is the report of the Trade Interests Committee, of which Mr. E. F. Phillips is Chairman. We will now listen to Mr. Phillips."

#### REPORT OF COMMITTEE ON TRADE INTERESTS.

Mr. President, Ladies and Gentlemen of the Michigan State Pharmaceutical Association:

Your Committee on Trade Interests would beg to submit the following report:

It has been said that our New England forefathers in the early history of the country had two great overruling purposes in life, namely: "Getting on in the world," and "getting to heaven." Whether or not the prospects of the average pharmacists getting to heaven are good, is not a subject for your committee to report upon. But if we can devise any means to enable ourselves to better "get on in the world," it is our duty to do so. Your committee has held no regular session and its chairman can only hint at a few of the current topics which, with the concerted action of the members of this Association, may lift some of our burdens at least. The movement now on foot throughout some portions of the State to restore the price of patents is one heartily to be commended. The Retail Druggist has suffered so long from cut rates that the advent of any excuse to return to full prices ought to be hailed with shouts of joy. If every member will constitute himself a committee of one to visit his neighbors and say, "they are doing this all over; our store is restoring prices, and we might as well all get the benefit

of this movement," he would be surprised how many would fall into line.

This unpatriotic action on the part of so many manufacturers in saddling the expense of the stamp tax upon the retailer is a subject that cannot be ignored. The example set by other Associations is one that should be emulated by this Association and proper resolutions offered giving those manufacturers to understand that their goods would either not be handled at all or that other goods would be pushed in their place. (The Iowa.) A Texas druggist recommends a heroic measure, which I will read. The matter of a universal private price mark on prescriptions is one that should receive the consideration of this Association. You all know that there are some members on this committee who may be called cranks on the subject of "mutual manufacturing." We are satisfied that where mutual manufacturing has been tried it has proven very satisfactory and beneficial to the members. This Association should individually and collectively do all in its power to further this movement. There will probably be many schemes set on foot in the future whereby the retailer will be enabled to enjoy the benefits of this newer method of producing goods at reduced cost to himself, of which he will have to choose those which seem to him best. The Pharmacists' Cigar Co. have made a "snap," as our farmer friends would say, whereby the members of that concern can buy goods and hold membership in the United States Pharmacal Co. without extra cost. Perhaps it is not within the province of a report of this nature to advertise any concern, and your committee would not do so were it not for the fact that these corporations were composed of the retail druggists of Michigan, Illinois and adjoining States. Our very selves in fact. This arrangement is in the estimation of your committee, a mutual one and should be taken advantage of. If you are not a member of either company, you should join one of them; it will be one stepping stone toward "getting on in the world."

Respectfully submitted,

E. F. PHILLIPS,  
C. N. ANDERSON,  
O. EBERBACH.

The President—"You have heard the report of Mr. Phillips, what will you do with it?"

Moved that it be received and placed on file.

The President—"I might say, gentlemen, it has been customary to discuss these reports as they are presented, section by section, and it seems to me that this will be the proper time to take up this question. What is your pleasure?"

Mr. Parker—"I think a report of this nature is of very little value unless it is discussed in all its points, and I hope that a motion will prevail to discuss the report presented by the Committee on trade Interests. I make that motion." Seconded.

The President—"It is moved and supported that we discuss the report, section by section."

Carried.

Mr. Phillips—"If you will excuse me, I will read a letter that Mr. Anderson, as a member of the committee, received from C. N. Snow." (Letter read.)

President—"We will now take up the discussion of the report, section by section."

(Secretary reads first part of report.)

The President—"The first question, as I understand it, for discussion, is as to the nature of the resolutions that this Association should endorse. Whether it will be one like the Iowa or the Indiana. The question is now open for discussion."

The Secretary—"I should think this would be a very opportune time to hear from the delegate from Indiana. They have started the ball rolling. It might be better to have their opinion before starting on our own."

Mr. Eberbach—"I think that report as read divides itself into two questions. The first would be for a movement throughout the State to restore schedule prices. Of course it would require local organization to restore them. I think the Association should give attention to that first, and then take up the stamp tax."

The President—"If agreeable, we will take up that question first. The question of dividing the State into districts for the purpose of restoring prices."

Mr. Pauly—"I wish to state, as far as Grand Rapids is concerned, it has been done. It was done by telephone between points and up went the prices from 60 to 80 and so on. All it needs in a large place is for one or two to start. It is wonderful how others will follow. They always wait for someone to start. Of course some concerns in Grand Rapids always maintained higher prices, but in ten minutes prices were restored."

Mr. Stocker—"With your consent, I will bear the gentleman out in his statement. We had in Indianapolis, about two years ago, a very good organization of retail druggists. It included every one in the city with the exception of one man, whom we now designate as 'The Spaniard.' He was the original cutter. He was the owner of what he calls the 'Cheerful Pill,' and we also call him the cheerful liar. He put out cut-rate advertising matter, but we paid no attention to him until there were some dissatisfied members in our Association, and then a few of us

originated the idea that we each contributed a small quantity of money to start an opposition store. We soon had him walking the floor, the same as he had us walking the floor, and he put a small boy in front of his place distributing hand bills stating prices at which he would sell goods. We put a bigger boy out in front of our store distributing hand bills stating prices which knocked his out of sight. We were getting along famously until one of our druggists, whom I will not call by name now, because he has repented of his action, had an idea that because he was this druggist that he had a mortgage on the trade there. He didn't want anybody stealing his trade, so he withdrew from our association and started in with the 'Spaniard.' Well, the boys went up in the air, and they all commenced to cut, and it wasn't but a short time until they were all sorry they commenced to cut. One thought he could sell patents as cheap as another, so they cut and they soon got down to bedrock prices and lower. They weren't satisfied with cutting patents. Well, the country fortunately got into trouble and had to raise revenue. Of course Congress spotted the druggist, as he is patriotic and unselfish. They said 'we will make him pay the principal part of it.' They intended the manufacturer should pay his share, but he saw a way to make us pay his too, so we pay his share and our share. When the advances in prices came we began to realize that we ought to get more for our goods than they cost us, so we got together and formed a resolution which was to get into effect provided 90 per cent. of the retail druggists signed the resolution. I think 95 per cent. signed it. We thought we could get them all in, with the possible exception of the 'Spaniard.' There were six that held out, and that rather demoralized us at first, but we concluded that we could live without the six, and since the time they refused to sign there are two or three of them that have come into the fold; so we have only three pure cut-raters down there. Only two of them amount to very much and we are in much better shape to make a fight against them now than we were two years ago, because the wholesalers were not united and didn't see our difficulty with the cutters. They have since found that the patent medicine trade, which brings them quite a revenue and cuts quite a figure in their receipts, amounts to something, so they were anxious to help us. They realized that their interests were our interests. They were willing to take up the cudgel and help us make the fight. We now count the wholesale members of the organization the same as the retail dealers. We are in better condition now to make the fight because there are several members that are

now in the organization that weren't in at the time, and the cutter will have more trouble in getting supplies now than he did at that time. All the cutters had to do was to send to Cincinnati and be supplied by the wholesalers, and the wholesale druggists of our town supplied the Cincinnati cutters. Some ordered from St. Louis and some from Chicago, but the St. Louis people are now in the association and will not supply cutters, provided the wholesale druggists request them not to do it. Mr. ——— gave me a copy of the resolution that the wholesale druggists of Indianapolis have adopted, that they intend to send to the wholesalers of Chicago and St. Louis, requesting them not to supply these cutters, and they will have a good deal of difficulty if they obtain supplies. They may get along for a while, but it will be difficult for them to send and get supplies, and we also intend to harrass them at every turn by getting in stationery supplies and everything of that kind and request them not to sell them to the cutters, knowing our organization to be particularly strong, they will heed our request, and we expect to make it pretty warm for those cutters from now on. I think that is all I have to say at the present concerning that." (Applause.)

Mr. Calkins—"In other words, I think the general cutter is getting tired of doing business for nothing. I don't think the retail trade will long stay where it is now. We must awaken personal interest. Mr. Pauly told us how this was done in Grand Rapids, and that was one of the worst cut towns in the country. A remarkable circumstance happened in Syracuse, N. Y., if it don't take up too much time, I will relate it. A big department store put in a stock of drugs. The druggists got together and every man had a big sign made, announcing that he was a cut-rate druggist, and stored it away in his store. On Sunday morning the department store appeared with a whole page advertisement of cut rate prices in drugs and medicines. The druggists immediately put up their signs and quoted prices, and Monday morning all the Syracuse papers contained advertisements of the regular druggists two cents lower than the cut-rate department store. The work went on until they all sold below cost. The department store soon sold far below cost, and then the other stores commenced to work up a scheme whereby they bought supplies of the department store, and parties from stores around the country drove in buggies from ten to fifteen miles around to buy general supplies. These men got in supplies until they wouldn't buy any more. It wasn't two weeks until that department store wanted to join the association, and wanted to give a bond that it would sell the same as others. It was com-

pletely played out in three weeks. But, that was done by concerted action. If this Association does anything practicable, it will be by taking advantage of the times now."

Mr. Stocker—"I neglected to state that we are not getting full prices on all patent medicines, but on dollar preparations we have established the price at 85 cents, 50 cents to 45 cent rate, and on all other preparations except Castoria, for which we get 30 cents, 35 for 35, 25 for 25 and 75 for 75 cent goods."

Remarks by Mr. Knill on condition of affairs at Port Huron, and by Mr. Mann at Detroit.

The President—"Any further remarks along that line?"

Mr. Eberbach—"It has been remarked here several times that we have been discussing this question for 16 years and resolving on it. I, for one, am sorry that this has been the case, but it isn't in order for this Association to formulate any kind of operation which can be managed locally. I think the remarks made illustrate and demonstrate the fact that every location and druggist will have to help himself. It is a fact that has been lost track of during all these talks that we have had during the last 16 years. Grand Rapids has demonstrated that she can help herself the same as Port Huron. If the Detroit druggists can help themselves, it is by organizing so that they can get 90 or 95 per cent. to get together, come to their senses, and form an organization. I don't think this Association can formulate a plan to apply to Detroit or outside places unless it is a local plan. I think it resolves itself into a local question and must be solved by the parties that are concerned in it."

Mr. Bennett—"The remark has been made by one or two that Detroit is the only bad cut-rate city left in the State. Lansing is a cut-rate city lately. We brought this up as a local question to try and solve, but found no help for it. It is very unfortunate that a great many patents are selling below cost—pills down to 14 cents, plasters down to 15 cents; other things down to 65 that cost \$8 or \$9 a dozen. How long it is to continue, I don't know. We have had these stores with the prospects of another opening in a few days. There are local causes for these things. This has been brought about by a couple of druggists. Nothing outside could be done; something can be done only by local effort there. It may continue for some time and it may not. Of course we know it will fall before a great while and we will bring things around again, but I think the mistake we have made is that we have insisted on a dollar for dollar articles. I think if we had

gotten 85 cents for dollar articles, we would not have had this difficulty. The small towns around us have been getting 85 cents for dollar goods. Of course we have lost a good deal of trade. Mr. Williams and myself for a year or so have been making an effort to make dollar goods sell at 85 cents, but there are a few who wouldn't follow, so that has got to go. And I don't know where the end will be."

The Secretary—"If I may talk twice on one subject, the question occurs to me, if it is the opinion of the Association that this cut rate question should be treated locally; I don't know why we should take time to discuss it now. If it is a local thing we better pass on."

Mr. Gundrum—"I look at it as merely a local affair and this Association can do nothing with it. Each section or locality must take care of itself. The sooner the advice, of sensible druggists prevail, the better for all of them. To bring this debating to a close, (we are consuming too much time for which we have better use), I move that we hail with delight the restoration of patent medicine prices in certain localities, and advise all druggists of the State to do likewise, and that it is the opinion of this Association that it should be done. That is all that this Association can do, merely showing our appreciation of the efforts that have been made, and I think perhaps that will close this matter, and we can go on to more important business."

Mr. Sourwine—"If it is taking up unnecessarily the time of any members of the Association, I don't want to say anything. If the majority of the members would like a discussion of this thing, if it is agreeable, I would like to discuss this thing to come to a final understanding, but I don't want to prolong it, if it is not. I would like to say that this is not necessarily a local question. It is one that affects us all sooner or later. There is only one way of regulating this question. I was going to bring it up later on, and if this question will be open at a later time, I would gladly give way until then. I have a plan that is applicable, but if this is the only time this is to come up I will spring it on you now."

The President—"It seems this is the proper time. The motion before the house should be withdrawn."

Mr. Sourwine—"I am debating upon the motion."

Mr. Gundrum—"I consent that Mr. Sourwine go on."

Mr. Sourwine—"I can tell you something that will set this matter right. The hold that the patent medicine men have on



the retail druggist is their advertising. We cannot deny that there are some patent medicines that have merit, a good many, but they don't all have merit back of them. Of those on your shelves, how many will do one-tenth of what they say they will do? Now what causes them to sell is the advertising. When it is represented by one of these concerns that they will send you \$100 worth of goods and three hundred dollars worth of advertising, you think you are getting a good deal of advertising by buying \$100 worth of goods. The fact is we could manufacture, and I don't believe in co-operative manufacturing, for the reason that there are too many, anyway there are some to cause trouble. But, I believe this Association could advertise for bids, first appointing a place and time, for a line of remedies to be sold at retail only by its members. Let the duty of controlling these remedies devolve upon an executive board, consisting of any number you see fit, to select a complete line of preparations to be placed on our shelves as patents. Apply for trade mark and copyright under distinctive names. I wouldn't put it in the form of a co-operative concern or anything of that kind or authorize remedies after Smith's formulas or anybody else's. Get the best lines of remedies suitable to the committee. They must be from formulae of recognized merit, and the manufacturers must give a bond to put up these preparations so they could be analyzed at any time to see that they were what they ought to be. Make a gross price, a two gross price or a great gross price, or a half a gross price. Have these remedies manufactured and sold only to members of this Association. Then we could buy of the manufacturers just as we need the goods. Advertise them as our own preparations. This wouldn't necessarily be done in any particular name, but own the name and trade mark, and when a man in Port Huron advertised it would benefit the man in Escanaba, and when the man in Escanaba advertised it would benefit the man in Detroit, and so on. It wouldn't be two years before our line of preparations would be known from one end of the State to the other. We could tell these patent fellows: 'We can do our own advertising.' You can do more advertising on your own remedies with \$25.00 than on the general run of patents with a hundred dollars. We have a line of goods in our two concerns in Escanaba that we have advertised for ten years, and it has paid us 100 per cent. for every bit of advertising. Any gentleman can step in there and see we have preparations on our shelves in our own name, and I can say it without boasting, that they sell better than any patents on the shelves. It is a big assertion, but it is true, and there are members of the Associa-

tion I can prove it by. The proprietors are advertising patents and wouldn't stop for anything. They are responsible for this cutting evil. They have encouraged cutters themselves. It isn't a question whether we will handle these goods, it is a question who will handle the most goods. You can't blame them. That is where the cutting is coming in, and that is why it will stay. You can organize the druggists in your town—I can in my town, but men outside will do the cutting. The line that is advertised in our State will become known in the next State and it will start out and spread out until we supply the patents. The present patent dealers are ruining the drug trade to-day, and in my opinion this is the only relief. Gentlemen, I thank you."

Dr. Ward—"We have discussed the matter of cutters, I think, ever since the first organization, or second meeting at Detroit, and I have been to pretty near every meeting. I don't see that we are ahead to-day of what we were then. Of course I have felt very little of the cut rate prices, because in our town we have had a tacit agreement to retain prices that are made on the packages. We sell a dollar preparation for a dollar. We don't cut at all. The towns around us have done so and we have felt the effect of that to some extent a good while ago. I saw this thing coming and I gradually introduced goods of my own preparation. I sell, of course, if anybody wants them, the regular patent medicines. I put up a sarsaparilla of my own, labelled that way, and I sell more of that than all the rest combined. I put that up so I make about a hundred per cent. I make pills and condition powders and all those things and everything that pertains to drugs. I don't bother myself about somebody else's goods, of course I keep them on my shelves if they are wanted, but let me tell you if we put up and push our own line it will not be but a few years until they come back and want us to put their goods in the shop. That is my experience. Of course, if it is a local matter, get together and do something. It is said by some to be local. In a certain sense it is, but in regard to what should be done in each particular place, the locality will change."

Mr. Eberbach—"The remarks made here by the two gentlemen who just had the floor are my sentiments exactly, but they go off onto a part of the discussion that really comes up later in the report, where it properly follows. The present question is regarding the condition of affairs in the different localities in the State. In fact I am in sympathy with the St. Louis mode in regard to the position with this patent medicine question. It simmers down to the same point I made before. It is simply to leave this question with the druggists. I think as far as com-

mercial affairs are concerned, leave them to be settled locally and not by this Association. I do not mean that this Association should not sympathize with them or take an interest in their affairs, but I don't think that the Association will have any more power to remedy it, than it has during the last 16 years with all its discussions."

The President—"It seems that there are two questions, and if there are no further remarks upon the motion of Mr. Gundrum I will put that now. All those in favor of the resolution offered by Mr. Gundrum manifest same with the usual sign."

Resolution adopted by vote.

The President—"Now we will take up the discussion as opened by Mr. Sourwine."

Mr. Sourwine—"I beg pardon for introducing that at the time. I was out of the room and didn't understand thoroughly what the subject was, but imagined I did, and took the floor when I did. These resolutions that have just been adopted I am in hearty sympathy with, and I know you all are. That sounds like the words that we get from the wholesale druggists and proprietors' associations. They are really in sympathy with us and hope that we will do something. That is about the size of it. What we are getting at is this: I have had people come in my store and ask me if I have got Smith's cough medicine, 50 and 25 cent sizes. No, I haven't got that, I have got others. 'I don't want that, I want Smith's.' That is made out in this part of the State. Now you see, if we have a line of preparations as I stated before, all bearing the same name, he would find it in Port Huron and every other city in the State. We want something known all over the State. Why, I have been called a poor druggist for not having these things. That is one thing with the people, and we don't like to hear it. Now, if this Association had started out five or six, or ten years ago with a line of goods, supposing the members were all pushing and advertising Brown's or Smith's or Jones' preparations in the State of Michigan, do you mean to tell me there wouldn't be a better demand for them than any other line of patent preparations on our shelves to-day? Gentlemen, there unquestionably would be. Take it up now. I recognize now that by discarding a line of preparations I have advertised for the last ten years it would be a detriment to me, but I am willing to make the sacrifice to help along a good cause. If my competitors come to me and ask me to come down to eighty cents I am practically saying to the people, I am beating you out of twenty cents on the dollar, the ninety cent people out of ten, and so on. When you come down on prices you are doing

this injury financially, and some of them look at you just that way. We get full prices in our town. In our store I maintain prices, or let the stuff stay there."

Mr. Eberbach—"We are ahead of the report; the next thing as I regard this matter is the stamp tax on our business. I am in sympathy with this, but I want to get at it in the right way."

Mr. Anderson—"I rise to a point of order and support Mr. Eberbach. We have a report to be treated. We have another one in which Mr. Sourwine's questions come properly. I make the motion that we go ahead and get rid of this and then take that up."

Mr. Parker—"I would like to have the Association express ringing resolutions that they have been mislead and stepped upon by the majority of manufacturers of proprietaries. That their articles be thrown out and that other articles be pressed in their places, and that their advertising be not distributed and let them know it. And also that every man shove his own preparations. Let the question die for all time to come."

The President—"I think it would be well to hear from Mr. Stockers as to the method pursued in Indiana."

Mr. Stockers—"What is the question on? Have you passed to the tax question?"

The President—"Yes, sir. I understand that we disposed of the other on the resolution of Mr. Gundrum's. Mr. Stockers will you favor us with your remarks?"

Mr. Stocker—"Mr. President, we have been and are formulating a plan by which to meet that very question, and we expect to have a special meeting next week. My mission up here was to obtain an intimation as to what the druggists were intending to do and to request that you send one or more druggists down there and help us bring the matter to a head and show that by such action we are all standing shoulder to shoulder regarding this matter. The wholesale druggists are working with us. They naturally want relief with us, and we intend to adopt as strong resolutions as we can find words to express and send them to the manufacturers to let them know what we intend to do regarding this matter. In our local associations we have adopted resolutions which are along the line of the Iowa resolutions, and we have also taken individual action which we think will have greater results than the concerted action of the State association, because these patent medicine men are among the prudent business men that we have in this country. They now think that the majority of resolutions that are passed by State Associations go no farther than the Secretary's report and

are there thrown away among the musty records, but if each individual will take the trouble to sit down and write them a personal letter it will have much more weight than resolutions passed by State Associations."

The President—"Are there any further remarks along this line?"

Mr. Stocker—"Don't lose sight of the fact that individual action is more than State action."

Mr. Eberbach—"I think this remark is a good one. We have passed resolutions right along and they went, just as the gentleman from Indiana has said, to the Secretary's reports and that was the end of them. Now, in regard to placing the burden of the stamp tax on the retail dealer, I think some of the proprietary men have put out as fast as possible, they have sent out circulars (I suppose you have seen them), stating that by an increase in the price of drugs and the tax by the Government that they had to raise the prices. They intended to advance them before, because particular drugs that they didn't use had advanced in price. Various things that the proprietor makes are made of commonplace drugs, and during the time these people were allowed to take \$6 or \$7 for dollar goods and pay the tax all was well, but now they want to raise it and then want to saddle the entire thing on us (going on the theory that druggists stand most anything); he stands so much he will stand a little more. We have got to give them to understand that we will not stand it, that we will shelve their goods and refuse to put out their advertising matter. Of course the proper course would be to take an interest in the manufacturer's goods that were protecting the drug trade, or at least were reasonable enough to pay the tax themselves. I think the retail drug trade has been most unjustly insulted by the advance. We all know that drugs are cheaper than they were twenty years ago; labor is less, and they are in a position to produce drugs cheaper than ever, and it is an insult to give us such taffy."

Mr. Parker—"Mr. Phillips says the committee will get up a resolution along the line of the report. To expedite matters, I ask that this course be pursued."

Mr. Phillips—"Here is a resolution:

"Whereas, The manufacturers of many patent medicines have heaped insult upon injury to the retailer by unpatriotic action in refusing to contribute their share to the stamp tax by advancing the prices, to cover the price of the taxes; therefore be it

"Resolved, That the Michigan State Pharmaceutical Association, in convention assembled, condemn such action on their part; and be it further

"Resolved, That we, as members of the Association, use none of those goods, but push the goods of the manufacturers who are willing to bear their share of the taxes, as contemplated by law."

Which was duly supported.

Mr. Eberbach—"In regard to that resolution, it is my opinion that the expression "unpatriotic" isn't the proper expression. There is no patriotism to it. It is entirely a commercial matter. The question is whether these patent medicine men will take up that part of the tax and add it to the expense account, or whether they will saddle on us the price of it."

Mr. Phillips—"I take issue with Mr. Eberbach, that this is a matter of patriotism. I think if they offer the goods it is a question of patriotism."

Mr. Eberbach—"It seems to me that it is improper."

Mr. Sourwine—"I think any person who has made a nice living by any means ought to contribute his share, and most of them do it. I do think it it unpatriotic. There isn't a spark of patriotism in those who ask the retail druggists to pay their share. They have quit issuing checks in order to avoid paying that tax. If they can't afford to pay two cents on a check we can't do it for them."

The President—"It seems to me this matter ought to go to a committee to report to-morrow. We want to get at it in a way I think by comparing this with the reports from different States."

The President put to vote the resolution as presented by Mr. Phillips, which was unanimously adopted.

The Secretary (reading next section of report)—"Question of universal private mark. The committee recommends its adoption."

The President—"That is open for discussion, gentlemen."

Mr. Stocker—"I may still give you some experience. The question came up in our local association concerning the adoption of a private mark and it was referred to a committee and carefully discussed, and they concluded that it would be a good thing to adopt. Previous to the adoption of the private mark we had a great deal of trouble about prices of prescriptions, because we didn't learn fully to trust our neighbor. We adopted the mark, the words "Day or night." The letters of which express about the length of time that we apply to our business, and of course it fitted the case just right and whenever a request for a copy of a prescription came in we cheerfully copied the prescription and put the private mark on the prescription, so if it was taken to another drug store they knew at once what we had charged for the prescription, and it was a money-maker from the start. Pre-

vicious to that time we didn't know exactly how much our neighbor had charged, whether he had charged a good price or whether when the copy was brought back he would charge so much. When we got hold of it we thought probably we were charging more than the others, but this settled it, and that thing has been kept up ever since by the members, even during the time our association was dissolved. We had no meetings for quite a long time and our experience in that line was very beneficial, and I would urge its adoption here. You will find it is a money-saver for you."

Mr. Gundrum—"I remember, some years ago, it is probably fifteen years ago or more, I was at Evansville, Ind., and I was talking with a number of druggists there. I was struck with the number of druggists who spoke of their having a private mark. That is as long ago as fifteen or twenty years, and I know it worked excellent with them, and I went so far as to take down the mark and I brought it home with me, but I never found a favorable opportunity to present it before."

Mr. Walker—"Wouldn't there be objections to this. Wouldn't it favor extravagant prices by dishonest druggists. If a copy of a prescription was brought into your store it would be necessary for you to indorse it, even if it was an exorbitant charge. You would have to do it. It seems to me another objection would be that unprincipled druggists could, on the sly, take advantage of your charge and cut a little under, on the idea that he would not be exposed. I think there are some questions about this."

Dr. Ward—"Why have a private mark? Have the price in ordinary numerals on the prescription. (Here someone said it could be torn off.) They could tear off the private mark just as well. Our town is a resort place and lots of prescriptions are brought there. I talk to the party a little while and I find out what he has been in the habit of paying. You know, and every druggist knows, that prescriptions necessary to be used (the doctor orders used) right along, and put up by druggists once in two weeks or such a matter, he can afford to charge less for than one which is put up once or twice at the outside, and I, by a general conversation find out these things and make my charges accordingly. Without regard to what anybody else charges, I put my charges on. They know what I charge. I have no objections to people knowing what I charge."

Mr. Parker—"I move that the recommendation be adopted and that it be referred to a committee to formulate a plan to carry it out."

Carried.

The President—"Do I understand from that, Mr. Parker, that you suggest the appointment of a committee?"

Mr. Parker—"Yes, there is some little trouble, I understand, with reference to the arranging of the hieroglyphics or the different value of the figures. I include that in my motion, and also to make it a committee of three."

The President—"Then I will appoint as that committee Mr. Parker, Mr. Gundrum and Mr. Walker."

The Secretary reads next section of the report, which is mutual manufacturing.

The Secretary—"We have a special Committee on Mutual Manufacturing, and it seems to me that the special committee's report will draw out plenty of discussion of that question without taking it up now. I would suggest that we pass it by."

Motion (seconded) to pass it by until report of Committee on Mutual Manufacturing.

Carried.

The President—"The next thing on the program is the report of the Pharmacy and Queuries Committee."

Prof. Prescott—"There is no formal report to be presented at present. If it is desirable some brief report on that question can be submitted later. The papers to be presented should be subject to the program and the order which has been made by the officers of this Association for the program. There are a number of papers, and at such time as you are at liberty these papers will be ready. Some upon scientific subjects, interesting papers of the Executive Committee, some interesting papers on trade interests, dispensing pharmacy, etc."

The President—"We will leave the question of papers until we have dispensed with the various committees' reports and call the papers up later. The next thing on the programme is the report of the Legislative Committee. Mr. H. J. Brown, of Ann Arbor, is chairman."

Mr. Brown—"The committee has nothing to report, as there has been no session of the Legislature since the last meeting. At the last meeting there was a motion made to pay the necessary expenses of the committee, and the small sum of thirty odd dollars was raised for that purpose. It is in the hands of the Treasurer, and the committee thought, inasmuch as the Legislature did not meet last year, best to let the matter go over until this year. Further than that we have no report to make."

Mr. Bennett—"I am on that committee with Mr. Brown. Is it proper now or at some other time to bring the matter up. We



ought to take the matter up. We ought to raise some funds for the next session."

Mr. Brown—"That will naturally come up before the next committee."

The President—"The report of the Adulteration Committee. Prof. Stevens, of Ann Arbor, is Chairman."

Pro. Stevens—"Prof. Schlotterbeck has prepared a paper that comes last in the evening, an illustrated paper. I would like to wait for it."

Prof. Prescott—"In regard to the illustrated paper, which can best be given in the evening, I would suggest the present is a safe time for it."

Prof. Stevens—"The paper will take a half hour, probably three-quarters of an hour. We don't want you to go away during any part of it. We have been to considerable trouble making the slides and bringing them here. We don't want you to go away. We want you to stay."

Motion to dispense with the rest of the reports and take up that paper now. (Supported.)

Carried.

Mr. Gundrum—"I move that when we adjourn we adjourn to half past 8 o'clock to-morrow forenoon, local time." (Seconded.)  
Carried.

Prof. Schlotterbeck prefaced his paper by stating that it was his intention to give at the University of Michigan, in the near future, a series of illustrated lectures on certain selected subjects in pharmacognosy that would be of interest to the general public as well. Thus, the series would include such topics as coffee, tea, cacao, vanilla, cinnamon, pepper, cinchona, the spices and condiments and others. The lecture on Tea Culture which follows is one of this series and was illustrated by thirty-five pictures and diagrams thrown on the screen.

#### TEA CULTURE.

There are in use at the present time, among different nations of the earth, at least eight distinct caffein-bearing plants, which are principally employed in the form of beverages and mastics. In order of commercial importance they are coffee, tea, cocoa, kola, guarana, Paraguay tea, Ceylon bush tea and Cassine tea; four seeds and four leaves. It would be interesting to trace the early history of these stimulating beverages; to learn when, by whom and for what purposes they were first used, but that would lead us too far from the real subject. Suffice it to say that in nearly every case the stimulating properties of these plants were recognized by natives long before the discovery of caffein. The adoption of these plants, therefore, in the form of

drinks to quench thirst, to temporarily appease hunger, to resist fatigue and to improve assimilation, was not prompted by a knowledge of the presence of caffeine, but was sought out purely and solely by human instinct. Is it not remarkable that the majority of the eight plants mentioned were selected independently and almost simultaneously from thousands of others and used, centuries before the discovery of caffeine, by ignorant and savage peoples who were remotely separated from each other? Yet such is the case and quite as remarkable is the fact that some of them have become so thoroughly introduced in civilized countries that they are called national beverages.

Of the three most popular ones, which have become inseparably associated with America, viz., coffee, tea and cacao, tea is of greatest interest to the student of pharmacognosy, for the reason that it is the only one whose culture has received any attention from the Government and the people as a possible American industry.

The early history of tea as an economic product is shrouded in considerable mystery or uncertainty, the absence of authentic historical data being liberally replaced by a profusion of fancy statements and fairy tales. According to Chinese legend, the virtues of tea were discovered by the mythical Emperor, Chinung, to whom all agricultural and medical knowledge was ascribed. This was about 2700 B. C. It was doubtfully mentioned by Confucius, 550 B. C. Tradition credits Daruma, the founder of the Buddhist Zen sect, with the introduction and marvelous growth of the tea-plant in Japan. Daruma was the religious successor of the Holy See of Buddha, the founder of Eastern Paganism. About the year 520 A. D. Daruma came from India to China for the purpose of converting its inhabitants to Christianity and religion. He himself strove for Divine grace by leading a most exemplary life. He believed it to be most holy to pass days and nights in uninterrupted waking, doing nothing but contemplating the Divine Being. After continued waking for many years, he at last became a little drowsy and fell asleep. Upon awakening he remembered with sorrow and anguish the holy vow he had so faithfully promised to keep. In a fit of intense remorse he decided upon sincere repentance. Believing that his eyebrows were the instruments and ministers of his great crime, he deliberately cut them off and threw them to the ground. Within a day he noticed, to his great consternation, that each eyebrow had taken root and grown into a shrub. Daruma ate of the leaves of this plant, and to his great surprise and happiness found his mind endowed with new strength and vigor to pursue his former Divine meditations. This shrub is now universally known as the tea-plant.

The first authentic description of this plant was given by a Chinese writer in the fourth century. As a result of its use, as a stimulating potion, by the physician to the Chinese Emperor, it soon became the national beverage. In the eighth century a tax was levied on its consumption in China. It was not until the middle of the sixteenth century that England began to use tea, but it met with such increasingly popular favor that Great Britain at the present time consumes more tea than the United States.

At the time when England first began to use it much was

written, usually in a hostile manner, upon the effects of tea upon the health and morals of the people. Thus, in 1678 we find a Mr. Saville writing to an uncle in sharp reproof of certain friends who called for tea instead of pipes and bottles after dinner, a base practice unworthy of gentlemen, and which Christian families should not tolerate. Further, he writes, "It is a fact that all nations are growing so wicked as to foster this wicked custom."

A medical writer, in 1722, says that there is one plant which seems to be particularly the cause of hypochondriac disorders, and it is known by the name of tea. He further says that it has of late years introduced itself in our diet and entertainments to such an extent that its use has become not less destructive to the animal economy than opium.

Dr. Lettsom, an early medical writer, believed that the pernicious custom of drinking spirits to excess was owing to the weakness and debility of the system, brought on by the daily habit of drinking tea. The trembling hand seeks temporary relief in some cordial to refresh the enfeebled system. Consequently, he argues, such persons necessarily fall into the habit of intemperate use of alcoholic stimulants.

Hanway, in his essay on tea, says: "Men seem to have lost their stature and comeliness, and women their beauty by the use of the tea."

To these and other equally vicious attacks there were fully as many rejoinders and after some time the friends of the new beverage steadily gained ground. Its praises were sung in Greek verse, Latin poems and epigrams, and in German song.

Tea was introduced into the colonies of North America about the middle of the seventeenth century, and its consumption increased so rapidly that in the year 1768 the English sent tea, to the value of \$750,000, to its colonists in the New World. Because of a burdensome tax placed upon it by the British Parliament, the colonists rebelled and instituted a severe boycott on its importation. As a result importations fell in one year to one-third the usual amount. The present consumption in the United States reaches millions of pounds annually. The tax of ten cents per pound, recently levied on tea for the purpose of creating war funds, while raising a wave of disapproval among foreign producers and domestic dealers, will not result in anything as disastrous as the famous Boston massacre or the historical Boston tea party, which took place just 125 years ago. Leaving tradition and history, let us turn to the consideration of the tea-plant itself.

The tea-plant is an evergreen, very closely related to the *Camellia*, whose fragrant flowers are so well known among connoisseurs. In fact, *Camellia Thea* is often given in text books as the botanical source. The leaves are elliptical-oblong or lanceolate in outline, serrate except at the base, smooth on both sides, green, glossy and from two to three inches long. The plant is usually from four to six feet high, though if left undisturbed in a favorable location it may attain a height of thirty feet. Linneus at first designated *Thea sinensis* as the original tea-plant, but after further study named two species, one of which was thought to yield black tea, while the other yielded green tea. In 1843 it was learned that black or green tea could be made from one and the same plant.

Though the plant may attain a height of thirty feet, it is always systematically pruned to a medium-sized shrub, since the leaf and not the seed is the desired product.

The seeds, of which there are only three in a fruit, are sowed mostly in nurseries, but not infrequently directly where the plants are wanted. As soon as the plumule has peeped out of the ground the whole nursery is protected against the excessive heat by covering with hay or straw, or, better still, with the otherwise worthless alang-alang grass. As soon as the plants are old enough to elaborate and assimilate food for themselves they are transplanted to their permanent places in rows three to four feet apart both ways. This work is done by the coolies, who become expert in the work. If possible, some kind of protection is afforded the young plants with underbrush, which furnishes sufficient necessary shade for the seedlings.

The cultivation is quite as simple as that of our common fruit trees. At the end of about nine months the plant is cut back to eighteen inches and left to itself until it reaches a height of about three feet, at which it is maintained by periodical pruning.



**Fig. 1.**—Plucking at above full leaves.

- A—Pruned level.
- B—Primary shoot, plucked above 3 leaves.
- C—Secondary shoot, plucked above 2 leaves.
- D—Tertiary shoot, plucked above 1 leaf.
- E—Plucked shoot.
- F—Abortive or Fish leaf.
- G—Bangy tips.



**Fig. 2.**—Plucking at shoulder.

- A—Pruned level.
- B—Primary shoot plucked at above  $2\frac{1}{2}$  leaves.
- C—Secondary shoot, plucked at above  $1\frac{1}{2}$  leaves.
- D—Primary shoot, plucked before second leaves.
- E—Plucked shoot.
- F—Abortive or Fish leaf.
- G—Bangy tips.

Even under the most favorable conditions for growth, plucking is not begun until the fourth season. Since plucking tends to weaken the plant, success in the management of a plantation depends upon the discrimination used in visiting the plants.

The pruning of the plant is of greater importance than we might at first assume. During the first few years the plants must

be annually inspected and pruned, usually between the months of June and September. The object of pruning is to remove the strong shoots that tend to impair the shape of the plant, and to develop in their stead a greater number of weaker, more desirable shoots. This produces a much-branching habit and develops more numerous young, succulent leaves, which alone are desirable.

By referring to the diagram (Fig. 1), the method of pruning will become clear. At A we see the pruned level, and since this shoot has lost its growing point by the operation, the primary shoot, B, has developed. But it was plucked for tea above the third leaf. Notice that a portion of the petiole of the leaf at E remains. This is intentional, for it protects the axillary bud, which later develops into the secondary shoot, C, which is plucked for tea. By a repetition of this process and proper pruning the spreading habit of the shrub is attained. In the second figure the method employed to some extent in Ceylon is shown. The terminal bud, with the growing point, together with the first, second and one-half of the third leaf is picked. The half leaf is called the shoulder and its function is to protect the axillary bud, which must develop a new leaf-producing shoot.

At an elevation of 3,000 feet, at least eight pickings can be made annually, providing there are no periodic changes in the climate. Because of this periodicity in the climate of China and Japan only three or, at most, four pickings can be made. The annual rainfall must be at least 60 to 100 inches if as many as eight crops are collected. The plucking is done in India and Ceylon by almost free coolie labor, which can be obtained at \$15 to \$25 per year. This seems incredible, yet the planters claim that these coolies not only support a family of five or six, but actually save money on that salary.

The plucking of leaves is not very simple and must be learned like a trade. The shoot must remain uninjured, the leaves being broken off with the naked hand, or, better still, nipped by the finger-nails just above the axillary bud. Only the leaf-bud and the youngest, succulent leaves, usually the four terminal ones, as shown in the first diagram, can be picked. Each individual carries a basket supported, either on the hips or swung from the heel, by means of a rope, and strips the shoots of the above-named leaves and throws them in the basket.

The very finest product of tea, which is used only by crowned heads, is plucked by women and children who are educated to the task from childhood. They are forbidden to eat fish, onions or anything else that might affect the aroma of the leaf by breathing upon it. Furthermore, at least one bath must be taken daily, and all plucking must be done with gloved fingers. Such tea, when finished and made only from the leaf-buds, commands from \$75 to \$100 a pound. Some will remember having seen such tea in the Ceylon building at the World's Columbian Exposition.

The most valuable product of tea, obtained from the bud and the youngest leaves, is called by the name Pekoe. The bud is more or less hairy, which gives to it a grayish color. The value of a tea is enhanced when it shows these light-colored Pekoe tips.

Referring to the diagram again, the grades of tea manufactured from leaves beginning at the tip are named as follows:

1—Flowery Pekoe, 2—Orange Pekoe, 3—Pekoe de Souchong, 4—Souchong, 5—Congon, 6—Bohea. If the three leaves at the growing point are plucked at once, they yield commercial Pekoe; if the whole shoot down to and including 5 is taken, it yields Pekoe Souchong. As a rule the leaves of different ages are not plucked separately, the whole flush being treated together and separated into different grades by sifting the finished tea.

It takes about four pounds green leaf to make one pound finished tea, and the average plucker will pick from twenty to twenty-five pounds of green leaves per day. On large plantations fully 1,500 to 2,000 coolie women are engaged in picking leaves. It is not surprising, therefore, that a tea party of large numbers can be seen at any and all times of the day on the larger plantations. As soon as the baskets are filled the women and children repair to a convenient spot, empty their baskets and sort out the coarser leaves under strict supervision. It is said that the jargon of these women, when sorting tea, is just about as intelligible and interesting as the conversation at a sewing bee, a fashionable pink tea or a German kaffeeklatsch.

After sorting, the leaves are carried to the factory, where the weights are carefully checked up to each person and sent in for preparation.

The manufacture of tea as at present carried on in India, Ceylon and Java is a very particular operation. If the processes are not conducted with uniform accuracy, according to specific and exact systems, the character of the article from the same plantation may not only vary from year to year, but from month to month. Because of the routine, slow, crude methods of the Chinese, their teas are particularly uncertain. The planters in India and Ceylon have, by studying the philosophy of the whole subject of tea culture, evolved a process by which the twelve operations of the Chinese have been reduced to five, with a reduction of time expenditure from three days to one day.

As already stated, black and green tea can be made from the same leaf, but as a rule only one kind of tea is made at a given estate. The fact that in certain districts only green tea is made and in others only black tea, has been adduced in support of the supposition that the plants producing them are distinct.

As before stated, Chinese and Japanese teas are prepared entirely by hand, requiring at least twelve different operations and three days' time. In India and Ceylon modern machinery is employed wherever possible and the leaves touched as little as possible with the naked hands. That the Indian teas are cleaner and more appetizing goes without saying, especially when it is claimed that some of the cheaper Chinese sorts are foot-rolled.

#### BLACK TEA.

The manufacture of black tea according to modern methods involves five stages, viz., wilting, rolling, fermenting, sunning and firing.

The fresh leaves are placed in thin layers, either on bamboo plates in the open air, (not in the sun) or upon broad, airy shelves in regular leaf-withering sheds in which there is a good circulation of air. As the leaf comes to the withering shed it is crisp and elastic; it crackles when pressed in the hand, and when bent and released it at once assumes its original form. The leaf

begins to wither in a few hours and is properly withered when it feels like a silk handkerchief or kid glove when pressed in the hand. Fresh leaves have no distinctive odor or taste, but when withered have a characteristic odor, not suggestive of finished tea at all, but which serves as an indicator to the skilled operator. The withered leaf is now taken to the rolling machine, which consists mainly of two square, flat plates, one over the other, one of which moves from right to left and the other forward and backward. The whole mass becomes juicy and foamy from the rupture of the cells and the exudation of the plant liquids. In China, the juice is squeezed out and thrown away, but in India it is carefully sponged up by the leaves, as it is believed to improve the quality of the tea.

In hand rolling of China and Japan, as much as can be operated on by two hands is passed from one person to another until properly rolled, when it is made into balls or masses preparatory to fermenting.

The fermentation is the distinguishing feature of black tea making. It consists in placing the withered leaves in shallow fermenting trays and covering with a wet cloth; or by placing in fermenting drawers, specially made for the purpose; or they may be spread thinly between wet cloths on the floor of the firing room, where the temperature is quite high. They remain here until they show at first glance a bright, new copper color. This fermentation or oxidation process induces in the leaf those physical and chemical changes which characterize black tea. There is a visible change and an invisible one; the former in itself is quite unimportant, but it is an indication of the culmination of the latter which is a very important change. The visible change is the conversion of the tannin into a red-brown phlobaphene or oxidized tannin, which probably causes the dark color of black tea. The invisible change is the increase in quantity of the volatile oil of subdued fragrance. Further than that, fermented or black teas are less stimulating to the nervous system than green teas and less disturbing to the digestive system. To sum up, then, the fermentation or the so-called oxidation process decreases the amount of tannin, hence makes it less astringent; increases the amount of volatile oil, therefore makes it more agreeably aromatic; and decreases the amount of caffeine, hence destroys some of its stimulating property.

But to return to the process. After fermenting, the leaves are exposed to the sun for a short time as a preliminary to the final drying or firing. The firing in China and Japan is done in brass sieves over charcoal fires, but since it was shown that the fumes of the burning charcoal are not a requisite for a good tea, firing machines of various models with automatic thermoregulators are substituted. With this single firing the tea is finished.

With the exception of the plucking of the leaves, all the operations so far described are performed by men.

The finished tea is now handed over to scores of women, who sit tailor fashion on the floor of the sorting room, in the factory, before bamboo plates of tea. They remove by hand all traces of foreign matter, such as sticks, stems, little stones, insects, pieces of wood and the like. The greatest cleanliness must be maintained. The chewing of betel or areca nut is especially forbidden, since small pieces falling in the tea may ruin the

entire lot. Now and then a little tobacco is allowed them, since it is scarcely dangerous. With the exception of the little children that prattle and play around them, there is as a rule not much noise and the women are only interrupted in their work when a hungry infant, crying for its dinner, is suckled until satiated.

From the sorting room the tea goes to the sifting room. Sifting is done either by women with ordinary sieves or by men, usually by hand, but in larger factories by machinery. Since in a given flush there are leaves of three or four different sizes, viz., 1, 2, 3, 4, etc., or as they were previously named Flowery Pekoe, Orange Pekoe, Pekoe de Souchong, Souchong, etc., different grades of tea can be approximately separated by sifting with sieves of different mesh. In larger factories hand labor is almost entirely replaced by sifting machines, which have long, narrow sieves given the proper motion by some eccentric contrivance.

#### GREEN TEA.

In India the manufacture of green tea is prosecuted comparatively little, the supply being drawn mainly from Japan, where its preparation is extensively practiced. While it may have been true at one time, when a 200 per cent. tax favored adulteration and sophistication, that green tea was nothing more than black tea faced with Prussian blue, it is not true as a rule now.

The distinguishing feature of the process for making green tea is the fixing against change; firstly, the green chlorophyll, and, secondly, the tannin and caffeine which are supposed to be held in chemical combination. This fixing is done by subjecting the fresh unwithered leaf to a sudden steaming over boiling water, or, as is the practice in India, to a sudden roasting in pans heated nearly to redness. The steaming is done by throwing a couple handfuls of fresh leaves into a round wooden tray about eighteen inches in diameter, with a brass wire bottom; the tray being placed over boiling water. A lid confines the steam and the process is complete in about half a minute. The moist, hot leaves are spread out on a table for a few minutes to be cooled by fanning, and then taken to the firing room. The Japanese firing oven is a simple wooden box, larger at the top than at the bottom, but lined with plaster. In the bottom are placed glowing charcoals. Over it rests a wooden frame with tough Japanese paper stretched over it. At first the attendant throws the cooled, moist, steamed leaves on the frame and tosses them in the air in quick succession, thus keeping the whole mass moving without any attempt at rolling or twisting. Gradually then he works the leaves into little balls, on the hot surface, finally opening them and rolling again into balls or thin spindles. The rolling and firing is continued, each successive time at a lower temperature, until the tea is perfectly dry, when it is finished tea. Suddenness of roasting and rapidity of firing or drying are the features of the process. Tea for home consumption does not require more than two firings, but since it is quite hygroscopic it becomes necessary, in order to fit it for long ocean voyages, to fire a third and even a fourth time. This expels all moisture and destroys the spores of fungus molds. This last firing is often done by tea brokers at the coast towns



in so-called godowns. Unfortunately this last firing sometimes darkens and discolors the tea, which must then be faced with color powders to satisfy the fancy of the housewife.

Almost the highest salaried man on an Indian tea estate is the tea taster, upon whose judgment alone the value of the different lots of tea is adjusted. He is seated behind a table upon which there are a score or more cups, each containing an infusion of tea. Behind each cup is a sample of the tea from which the infusion was made. In front of each cup are the dregs or extracted leaves. First the dry tea is examined as to general appearance, odor, and taste. Among the many samples, which to the unskilled man seem to be identical in quality, one is condemned, another has good color, that one must be resieved, this one is dusty, and so on. The tea taster then holds some of the cool infusion in his mouth a short time, rinses his mouth with it, and then expels it. The following general rules are laid down: The darker the liquor the stronger the tea, and the nearer the exhausted leaf approaches a salmon brown color the purer the flavor. The taste should be mild, sweetish, and agreeably astringent.

Green teas are sorted and graded just as black teas are, but they are designated by different commercial names. The grade in black tea known as Flowery Pekoe is Young Hyson in green tea. Orange Pekoe in black tea is Gunpowder in green. Pekoe in black tea is Hyson in green tea. Souchong in black is Imperial in green, and so on.

Now that the tea has been classified according to value, it is weighed and made up into small packages lined with tin-foil; or it is weighed and packed in large chests lined with tin-foil to protect against moisture; nailed up, carried by the men to the railway or dock, and loaded for transportation.

Scented teas are made only in China and are made by mixing fragrant flowers like the orange, star anise, camellia, and others, with the tea for some time and then removing by sifting.

Brick tea is a cheap form made of broken leaves, stalks, etc., compressed into bricks of various sizes. It is in great demand among the poorer classes of Central Asia and Europe. When the world was dependent entirely upon China for tea, adulteration and sophistication was practiced with a high hand. Artificial tea was not uncommon and exhausted leaves were doctored up, with various astringents and adhesives, to do duty again. The leaves of willow, beech, hawthorne, and others were freely worked up as tea. Owing to the increasing competition in other quarters and the watchfulness of custom authorities, tea adulteration has become rare.

The finest of all teas are those called Mandarin which are fired only once. Being somewhat moist, they will not bear transportation or long keeping. In view of the fact that teas of highest excellence are to be had only in tea growing countries it was thought that tea for American consumption could be made superior to the usual export article, by a less heroic treatment, at a reasonable price. As early as 1857 this government encouraged experiments in tea culture by furnishing tea plants to farmers living in a favorable climatic zone, which included Georgia,

Florida, South Carolina, North Carolina, and Tennessee. Scores of persons who received the plants sent the reports of their venture to the United States Patent Office. Some of these showed wild enthusiasm on the part of the planters, while others were equally dismal. The distribution continued however until 1879, when 120,000 plants were sent to farmers anxious to try the experiment. At the present time many southern families grow enough tea for their use alone, but so far as the writer knows, only one plantation of any considerable size exists in the south, and that is the Pinehurst plantation at Summerville, S. C. That a fine quality of tea can be produced in America has been fully demonstrated over and over again, and with profit too, but it must be sold under unusually favorable conditions. Unfortunately for this industry, as well as for that of other economic products which would flourish here such as cacao, kola, fig, etc., the price of labor is too high to enable competition with the product of oriental and tropical countries. At Pinehurst, the simple plucking of the leaves costs almost as much as the raising, cultivating, plucking, preparing, and packing of a similar quantity of Asiatic tea. In India and China the coolies work for 5 to 10 cents per day, and there lies the secret of their success and our failure.

The prospective American tea grower is confronted with two alternatives; either he must produce a tea approaching the Mandarin in quality and thus command a higher price than the cheaper imported article, or he must secure cheaper labor. The former is doubtless possible, yes probable, but the latter questionable even a century from now. In answer to the question, will tea culture probably become a profitable American industry, we must for the present reply in the negative.

The President—"What is the further pleasure of the Association?"

Adjourned.

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### THIRD SESSION.

August 3, 1898.

Session called to order by the President at 8:30 a. m.

The Secretary read a communication from A. B. Schumacker.

Grand Ledge, Mich., August, 1, 1898.

Charles F. Mann, Secretary M. S. P. A., Detroit:

Dear Sir:—Owing to a most serious and sad domestic calamity prevents me from availing myself of the opportunity of attending the meeting of the Association this year. I hope the meeting will be pleasant and profitable to the Association. I would suggest that the Association take some action relative to

patent medicine manufacturers who want the retail druggist to bear the war tax, etc. Please extend my regrets to the members of the Committee of whom I have the honor of being a member.

Yours truly,

A. B. SCHUMAKER.

Dr. Ward—"I move that a committee be appointed to draft resolutions of condolence with Mr. Shumacker upon the loss of his son, and that the communication be placed on file."

Carried.

President—"I will appoint as that committee, Dr. Ward, Mr. Gundrum and Mr. Perry."

"The next thing in order will be the report of the chairman of the Adulteration Committee, Prof. Stevens."

#### REPORT OF ADULTERATION COMMITTEE.

The Committee on Adulterations submits the following report: At the last meeting of this Association the present chairman of the committee made a report upon the condition of the chlorinated lime on the market. At the close of the report he offered to examine without charge, samples of chlorinated lime to be sent him by retail pharmacists. This offer was made in good faith and prompted by the desire to assist the brother pharmacists to secure the purchase of only choice goods. We feared that we might be exhausted by over work, but now that the year is past we can find time to report that we have not received a single sample from the retail pharmacists, but have contributed to their sales by purchasing a few samples which we have examined with the following results: (It must be borne in mind that the Pharmacopoeia requires that chlorinated lime contain 35 per cent of available chlorine.)

No. 1, Acme "high test," metal box, 15 per cent. No. 2, Acme "high test," metal box, 2.5 per cent. No. 3, Acme "high test," metal box, 11.6 per cent. No. 4, Acme "high test," metal box, 14.2 per cent. No. 5, Hirsch "Crescent," metal box, 23.5 per cent. No. 6, Hirsch "Crescent," paper box, 21 per cent. No. 7, Red Riding Hood, 24.5 per cent. No. 8, Red Riding Hood, 22.8 per cent. No. 9, Red Riding Hood, 25.8 per cent. No. 10, Red Riding Hood, 22.3 per cent. No. 11, Red Riding Hood, 23 per cent. No. 12, Red Riding Hood, 25 per cent. No. 13, Red Riding Hood, 19 per cent. No. 14, Red Riding Hood, 18.2 per cent.

During the winter a sample of chlorinated lime, containing 37 per cent of available chlorine, was received from the Dow Chemical Company, of Midland. This sample was divided and placed in two ordinary salt-mouthed bottles. One has been opened but a few times, while the other has been opened frequently. July 27 they contained respectively 30.5 and 28 per cent.

A sample put up in an amber-colored bottle by Dr. Squibb, which had been in stock a few months, contained 32 per cent. Six months later it contained but 20 per cent.

Dr. Squibb states that chlorinated lime kept in a well-stoppered amber bottle lost 8 per cent. in ten months and 9.5 per cent. in sixteen months.

A sample just received from the Dow Chemical Company contains 36 per cent. The company states that they pack in barrels holding 325 pounds and do not sell in smaller quantities. This will doubtless keep it out of the hands of the retail trade.

#### SPIRITS OF NITROUS ETHER.

The condition of this preparation as found on the market has not materially changed since the report made in 1895. We find that it is usually kept in large, clear glass bottles, partially filled. This is in direct violation of the directions of the Pharmacopoeia, which explicitly state that it shall be kept in a cool place, in small dark amber-colored, well-stoppered vials. It should yield, when tested in a nitrometer, not less than eleven times its own volume of nitrogen dioxide.

Mr. Charles Goff examined several samples, purchased from retail pharmacists, with the following results:

|       |                                              |               |
|-------|----------------------------------------------|---------------|
| No. 1 | each Cc. of spirits of nitrous ether yielded | 7.8 Cc. NO.   |
| No. 2 | each Cc. of spirits of nitrous ether yielded | 6.62 Cc. NO.  |
| No. 3 | each Cc. of spirits of nitrous ether yielded | 3.04 Cc. NO.  |
| No. 4 | each Cc. of spirits of nitrous ether yielded | 0.4 Cc. NO.   |
| No. 5 | each Cc. of spirits of nitrous ether yielded | 11.42 Cc. NO. |
| No. 6 | each Cc. of spirits of nitrous ether yielded | 0.12 Cc. NO.  |
| No. 7 | each Cc. of spirits of nitrous ether yielded | 8.66 Cc. NO.  |
| No. 8 | each Cc. of spirits of nitrous ether yielded | 0.36 Cc. NO.  |
| No. 9 | each Cc. of spirits of nitrous ether yielded | 3.22 Cc. NO.  |

#### JALAP.

When tested according to Pharmacopoeia methods, jalap should yield not less than 12 per cent. of resin, of which not over 10 per cent. should be soluble in ether.

Mr. Goff examined eight samples, with the following results:

|       | Per cent. of Resin. | Per cent. of Resin.<br>soluble in ether |
|-------|---------------------|-----------------------------------------|
| No. 1 | 6.75                | 9.65                                    |
| No. 2 | 8.45                | 7.93                                    |
| No. 3 | 9.69                | 5.59                                    |
| No. 4 | 10.33               | 14.13                                   |
| No. 5 | 8.36                | 8.73                                    |
| No. 6 | 9.44                | 10.48                                   |
| No. 7 | 8.44                | 9.63                                    |
| No. 8 | 8.08                | 9.6                                     |

#### REDUCED IRON.

The Pharmacopoeia requires that reduced iron contain not less than 80 per cent. of metallic iron.

Mr. J. A. Coram examined several samples as found in the market. Duplicate estimations were made in each case, from which we take the average:

|                      | Per cent. of Metallis Iron. |
|----------------------|-----------------------------|
| No. 1 contained..... | 64.25                       |
| No. 2 contained..... | 54.                         |
| No. 3 contained..... | 36.                         |
| No. 4 contained..... | 39.                         |
| No. 5 contained..... | 51.5                        |
| No. 6 contained..... | 61.                         |
| No. 7 contained..... | 75.5                        |
| No. 8 contained..... | 7.0                         |

No. 8 resembled powdered animal charcoal.

M. Coram also estimated the amount of absolute hydrocyanic acid in several samples of the dilute acid as found in the market, with the following results:

|                      | Per cent of HCN. |
|----------------------|------------------|
| No. 1 contained..... | 1.6              |
| No. 2 contained..... | 0.77             |
| No. 3 contained..... | 1.02             |
| No. 4 contained..... | 1.6              |
| No. 5 contained..... | 0.4              |
| No. 6 contained..... | 0.99             |

The President—"You have heard the report. What will you do with it?"

The Secretary—"I move that the report be accepted." (Seconded.)

Motion carried.

Prof. Prescott—"I would like to support the invitation which has been extended to druggists to forward preparations for examination and analysis. Of course these few incidents in themselves would seem to be of slight importance, but they are representative, necessarily so, of the contingencies and strength of medicines that are dispensed by professional pharmacists. We might very well as an association pay a good deal of attention to analysis and co-operate in just such work as has been reported in this feature by this committee. I would like to ask Prof. Stevens if there is any brand of chlorinated lime in the market which would come anywhere near the strength given in the Pharmacopoeia?"

Prof. Stevens—"I think the standard of 35 per cent. is too high. You remember, before the revision of 1890, some thought the standard was too low. The U. S. P. of 1880 placed it at 25 per cent. Some thought that 25 per cent. was too low, and thought that plenty of chlorinated lime could be had above 30 or 32 per cent. It certainly seems to me that the standard is too high. I didn't obtain any 32 per cent. in packages, etc."

Mr. Gundrum thought the standard was not too high and followed with other remarks.

Prof. Stevens followed with other technical details.

## SOME NOTES ON ADULTERATION OF DRUGS AND COMPOSITION OF VARIOUS COMPOUNDS.

BY C. C. SHERRARD, PH. C., B. S.

**Potassium Iodide.**—A large number of samples from various manufacturers and dealers have been examined. In every case, not only this drug, but with all others, a complete record is on file, showing the time of purchase, from whom purchased, price, etc.

One sample from a Philadelphia firm, contained a considerable excess of caustic potash and potassium chloride; another sample from the same firm contained potassium sulphate and sodium chloride, and one other sample contained potassium sulphate and nitrate. Another sample from a New York house came to hand in a very moist condition, indicating that it had been carelessly kept in stock, since KI. is permanent in dry air. This sample, however, contained an excess of KOH, nitrate, and nitrite.

**Manganese Dioxide.**—The U. S. P. requires that native, crude manganese dioxide shall contain at least 66 per cent of the pure  $MnO_2$ ; three samples assayed respectively 6, 25, and 60 per cent. of  $MnO_2$ .

Four samples of pills obtained from different sources and claimed to contain 1-10 grain each of  $MnO_2$ , were assayed and found to contain 1-100, 8-100, 1-10 and 1-10 grain respectively.

**Tartaric Acid.**—A large number of samples examined and but one contained impurities, which were traces of sulphate of iron and calcium.

**Sodium Bicarbonate.**—A great many samples have been examined in the last two years, most of them from the Michigan Alkali Company, all of which were pure. Only one sample deserved real criticism, the chief impurity being a considerable amount of NaCl.

**Magnesia.**—A compound from a dealer in South America, labeled "Aerated Magnesia," consisted approximately of Sodium bicarbonate 7 ozs., magnesium carbonate 276 grains, tartaric acid 7 2-3 grains, rechelle salt 9 3-4 grains. Evidently the name given to the above mixture was intended to unduly mislead the physician, as well as the more intelligent class of consumers.

The claims on the label were as follows:

Magnesia and Carbondioxide:

Medical properties: A panacea for all ills, including headache of all kinds, sea-sickness, various kinds of fevers, etc., etc. Cautions in regard to doses were very specific, but it is easy to see that directions for dosage were really unnecessary.

**Hydrochloric Acid.**—Only one of the many samples was found to be under the U. S. P. standard; this sample contained but 20 per cent. of absolute HCL.

**Balsam Copaiba.**—Out of about twenty samples only two did not respond to the gurjun balsam test according to the U. S. P. While many of the balsams conformed to the U. S. P. requirements for Sp. Gr. yet they massed very poorly, the inference being that deleterious oils had been added which would not respond to the magnesia massing test. This like many other instances offers ample room for better tests for standards of purity. In fact, the

U. S. P. tests are very, very crude in many cases. Specific gravity offers no clue to the sophistication of this drug, because other oils in which resin can be dissolved will give the proper Sp. Gr.

Beeswax.—One sample from a New York house contained 10 per cent. soft paraffin. The melting point was 60° C. instead of 63° to 64° (U. S. P.). Sp. Gr. .800, should be .861. For comments on U. S. P. test by C. C. Sherrard, see *Amer. Jour. Ph.*, 1892, page 252.

Port Wine.—One sample claimed to contain 20 per cent. alcohol, assayed 15, 5-13 per cent., which is a loss to the retailer of 23 1-3 per cent., based on the alcoholic strength. The average acidity for official wines is .684 per cent., minimum .45 per cent., maximum .77 per cent. All the port wines conformed to the U. S. P. requirements for acidity, but several sherry wines assayed as high as 1 per cent. total acidity, estimated as tartaric acid. All wines containing less than 20 per cent. alcohol and more than .77 per cent. acid were condemned as not being up to U. S. P. standard.

Cotton Root Bark.—The U. S. P. menstruum directs 75 per cent. alcohol and 25 per cent. glycerin in making the fluid extract. I have found samples varying from 5 to 25 per cent. of extractive. This variation should be corrected. Cotton root bark should be collected at or near a certain stage of maturity, the period depending upon the efficiency of the drug at a specified period of maturity.

Fish Glue.—A sample from a New York house claimed by the agent to be free from glucose, contained 25 per cent. of the latter. A good fish glue should be practically free from glucose.

Creosote.—Several samples of creosote contained varying amounts of carbolic acid, according to the U. S. P. tests.

Oleoresin Cubeb.—One sample contained foreign oils, strongly suggestive of mace, turpentine, wormseed and also acetone. The latter was probably employed in the manufacture of the oleoresin.

Potassium Carbonate.—One sample was contaminated with sodium, iron, sulphite and chloride.

Uterine Powder for Painful Menstruation.—The sample was obtained from a firm in Boston, Mass. The tablets were directed to be used internally. Qualitative tests showed only acetanilid and sodium bicarbonate, or a composition similar to antikamnia. Uterine tablets and suppositories have become a great fad of quacks in the last two years. It seems to be a profitable field for obtaining money because of the credulity of ladies that the nostrum will give relief in painful menstruation. Of course there is a concealed object in view in most cases. It is true that many of the suppositories are valuable for the purpose advertised, but the retail druggist could furnish the doctor with identical preparations for about 1-1000 to 1-10 the cost of the secret nostrum. The composition of uterine suppositories consists usually of one or more of the following constituents:

Cacao butter for a base.

Alum.

Boric acid.

Zinc sulphate.

Morphine.

Atropine.

Hydrastine.

Berberine.

Tannic acid.

As previously stated, it is an extortion from innocent women, and should not be tolerated.

**Rough on Rats.**—Three samples from different manufacturers were analyzed:

|        |                         |      |           |
|--------|-------------------------|------|-----------|
| No. 1. | Barium Carbonate.....   | 58.3 | per cent. |
|        | Arsenious Acid .....    | 38.3 | per cent. |
|        | Charcoal .....          | .4   | per cent. |
|        | Pumice .....            | 3.0  | per cent. |
| No. 2. | Arsenious Acid .....    | 28   | per cent. |
|        | Calcium Sulphate .....  | 40   | per cent. |
|        | Silicates .....         | 20   | per cent. |
|        | Moisture .....          | 8    | per cent. |
|        | Other ingredients ..... | 4    | per cent. |
| No. 3. | Arsenious Acid .....    | 29   | per cent. |
|        | Calcium Oxalate .....   | 53   | per cent. |
|        | Silicates .....         | 10   | per cent. |
|        | Other ingredients ..... | 8    | per cent. |

**Malt Extracts.**—A good malt extract should convert at least five times its weight of starch into dextrin in ten minutes. I have found malt extracts which will convert from fifteen to one hundred and twenty times their weight of starch in ten minutes. There is evidently a great variation in activity and intrinsic value of malt extracts. If my method for estimating the activity of malt and diastase preparations is followed it will result in considerable profit to the retail druggist, as well as to the physician. One extract of malt from a Chicago house assayed 1 to .07 and contained 35 per cent. of glucose; another sample assayed 1 to .85, and another sample from a New York house assayed 1 to .15 and contained 27 per cent. of glucose.

Amylolytic ferments are very valuable medicinal agents and there should be a standard for their maximum and minimum amount of glucose, cane sugar, extractive, etc.

**Oil of Sandalwood.**—Only two samples were found to be lighter than the U. S. P. standard, which .970 to .978. Schimmel's test is, sp. gr. .975, and the oil should be soluble in three times its volume of 70 per cent. alcohol. I have found but very little inferiority in sandalwood oils, Schimmel's is always a pure article.

**Apiol.**—Commercial apiol is a peculiar oleoresin, greenish color, and varies greatly in solubility, depending upon the method of manufacture. The active ingredients are soluble in alcohol, and commercial apiol should, therefore, be soluble in the same menstrum.



Most manufacturers prepare a brown or red and also a green apiol. The former is much more active than the latter. The price should correspond with the yield and method of manufacture.

The alcoholic yield of parsley is from 20 to 30 per cent. oleo-resin. Benzine extracts from 28 to 50 per cent. An apiol not soluble in alcohol is probably worth not more than one-half as much as one that is, both from a medical and financial standpoint.

**Colocynth Apples.**—The impression has been created that Spanish colocynth apples are worthless, inert articles, and the price, therefore, is less than one-half of the Trieste apple. My observation, by repeated investigations and experiments, satisfies me that there is little or no difference in percentage yield of active constituents, and the retail druggist should not be induced to buy the Trieste at several times the price of the Spanish apple.

The percentage yield of seed in the Spanish apple is 70 to 80, and of the Trieste 65 to 75. The solid extract, using 50 per cent. alcohol, from the Spanish is 22 to 32 per cent., and from the Trieste from 30 to 35 per cent., hence, there is very little difference from an economic point of view.

Prof. Prescott—"I have some papers to be presented."

The President—"How many papers have you now?"

Prof. Prescott—"Five. There are some pharmaceutical and some of business interest."

The President—"Under the head of unfinished business there is a partial report of the Executive Committee. Prof. Stevens, have you the report of the Executive Committee. If so, we will listen to it."

Prof. Stevens read report.

#### REPORT OF EXECUTIVE COMMITTEE.

Your committee beg leave to report that we have held two meetings during the year, one at Grand Ledge, for the purpose of organization. All of the members were present, except Mr. W. S. Winegear. The second meeting was held in May, at the Cadillac Hotel in Detroit. Present, E. E. Calkins, A. B. Stevens. The following gentlemen met with the committee: President Webber, Secretary Mann, Local Secretary Rodgers and W. D. Church. At the Detroit meeting we appointed special committees to aid the local Secretary and made general arrangements for the present meeting, as printed in the program.

We have examined the accounts of the Secretary and Treasurer and found them correct.

A. B. STEVENS,  
E. E. CALKINS.

The President—"Gentlemen, you have heard the report. What will you do with it?"

Motion to accept and adopt the report as read.

Carried.

The President—"We will pass by the report of Committee

on President's Address for the present. Is the Committee on Pharmacy Law ready to report, Mr. Perry?"

Mr. Perry—"No, sir, they are not."

The President—"There should be at this time a Committee on Papers."

Mr. Gundrum—"I move that Dr. Lyons, Mr. Parker and Mr. Brown be that Committee on Papers." (Supported.)

Carried.

The President—"The next thing in regular order is the report of the Committee on Mutual Manufacturing, but inasmuch as there are quite a number of our members who are not here who are very much interested in the matter, I think perhaps we will better let that go for the present. And the next thing will be the reading of some of these papers."

Mr. Brown—"Aren't as many here as are likely to be here?"

The President—"The very ones whom we would like to have here are not here. I might explain that that committee which was recently appointed was simply to award prizes."

## THE CHEMICAL EXAMINATION OF WINES.

BY A. B. LYONS, F. C. S.

Chemical examination of a wine may be undertaken to determine whether or not it has been made from the pure juice of the grape, to ascertain whether in the process of manufacture objectionable additions have been made to it, or simply to form a judgment of its character a little more exact than is possible by the simpler process of physiological experiment. As a preliminary, naturally, the physical properties of the liquid are observed, color, "bouquet" or odor, taste, presence or absence of carbonic acid gas. The expert will be able to predict very nearly what will be the result of the chemical tests after having thus exercised his special senses. The figures, however, resulting from analytical experiments are more satisfactory and convincing to outside parties.

### SPECIFIC GRAVITY.

The specific gravity of the specimen should be taken, most conveniently by the Westphal balance, but with greater nicety by the specific gravity bottle. Of course the wine must be brought to the standard temperature before this test is made. Hydrometers are not generally constructed with a sufficiently open scale to be of much service. With a suitable instrument, however, whose error, if any exists, is accurately known, a reliable result is obtained in a minimum of time. In dry wines the specific gravity is generally lower than 1,000, in sweet wines higher. By taking the specific gravity of one portion of the wine in its natural condition, and of a second which has been first accurately measured at standard temperature, then evaporated on

a water bath to one-half or one-third its volume, and then brought back to the original volume, at the same temperature as before, by addition of recently boiled distilled water, we may ascertain, first, the amount of alcohol present, second, approximately the amount of "extractive," i. e., organic and saline matter.

To determine in this way the alcohol, add one to the initial specific gravity, subtract from this the specific gravity of the alcohol-free solution; the difference will be the specific gravity of a mixture of alcohol and water of the same alcoholic strength as the wine. Suppose the specific gravity of the wine to be 0.9933, that of the residue after evaporation when made up to the original volume 1.0165. Then  $1.9933 - 1.0165 = 0.9768$ . By reference to our alcoholic table, it is found that this corresponds with an alcoholic strength of 19.28 per cent. by volume, or of 15.65 per cent. by weight. The former of these figures requires no correction, and it is the volume percentage that is most commonly desired, since alcohol is generally bought, sold, and taxed by the gallon rather than the pound. The per cent. by weight will not be exactly the figure taken from the table, since this assumes that the mixture is one simply of alcohol and water. The correct figure will be found by multiplying that taken from the table by the specific gravity of the water-alcohol mixture (0.9768 in the example above) and dividing the product by the specific gravity of the wine (0.9933 in the example). This would give 15.39 per cent. instead of 15.65, as the true alcoholic strength of the sample.

#### DETERMINATION OF EXTRACTIVE.

The quantity of "extractive" in the wine may be estimated with sufficient exactness for ordinary purposes by the following table, based partly upon experimental data, partly on the assumption that the extractive consists largely of sugar.

| Per cent. of extractive. | Sp. Gr. of Alcohol-free fluid restored to original volume. | Per cent. of extractive | Sp. Gr. of Alcohol-free fluid restored to original volume. | Per cent. of extractive. | Sp. Gr. of Alcohol-free fluid restored to original volume. |
|--------------------------|------------------------------------------------------------|-------------------------|------------------------------------------------------------|--------------------------|------------------------------------------------------------|
| 0.2                      | 1.0008                                                     | 2.4                     | 1.0092                                                     | 4.8                      | 1.0187                                                     |
| 0.4                      | 1.0015                                                     | 2.6                     | 1.0100                                                     | 5.0                      | 1.0195                                                     |
| 0.6                      | 1.0023                                                     | 2.8                     | 1.0108                                                     | 5.2                      | 1.0203                                                     |
| 0.8                      | 1.0030                                                     | 3.0                     | 1.0116                                                     | 5.4                      | 1.0211                                                     |
| 1.0                      | 1.0038                                                     | 3.2                     | 1.0123                                                     | 5.6                      | 1.0219                                                     |
| 1.2                      | 1.0045                                                     | 3.4                     | 1.0131                                                     | 5.8                      | 1.0227                                                     |
| 1.4                      | 1.0053                                                     | 3.6                     | 1.0139                                                     | 6.0                      | 1.0235                                                     |
| 1.6                      | 1.0061                                                     | 3.8                     | 1.0147                                                     | 6.2                      | 1.0243                                                     |
| 1.8                      | 1.0069                                                     | 4.0                     | 1.0155                                                     | 6.4                      | 1.0251                                                     |
| 2.0                      | 1.0077                                                     | 4.2                     | 1.0163                                                     | 6.6                      | 1.0259                                                     |
| 2.2                      | 1.0084                                                     | 4.4                     | 1.0171                                                     | 6.8                      | 1.0267                                                     |
|                          |                                                            | 4.6                     | 1.0179                                                     | 7.0                      | 1.0275                                                     |

Direct estimation of the extractive or total fixed matters in the wine is made by evaporating an accurately measured portion in a flat porcelain or preferably a platinum capsule. Of dry wines 25 to 50 cc. may be conveniently used, measured at standard temperature with an accurately graduated pipette. Five cc. only of a very sweet wine or ten of a moderately sweet one should be used. The evaporation may be begun on the water bath, the residue to be treated afterwards at least two hours and a half in a drying oven at 100° C., cooled in a desiccator and weighed.

#### MINERAL CONSTITUENTS.

Determination of the ash or total mineral matter contained in the wine is of greater importance as bearing on the genuineness of the wine than determination of the extractive. The method is the familiar one of evaporating to dryness in a platinum dish and incinerating the residue. The best plan is to apply heat at first only sufficient to char the material. Maintain this moderate heat—below redness—half an hour or more, then let the capsule cool and drench its contents with distilled water. Evaporate again on the water bath, and heat again just to the point of incipient redness another half hour. Repeat this alternate moistening and igniting of the residue until nothing remains but a white or grayish ash. Ten cc. of a sweet wine is as much as can be easily managed for an incineration, but the quantity of ash remaining will be very small, since pure wines contain generally less than two-tenths of one per cent. of mineral matter. Of a dry wine at least 25 cc. should be taken for the determination. Of course analytical balances are required for making the weighings.

#### DETERMINATION OF ALCOHOL.

One of the most important determinations to be made is that of alcohol. The method already described gives fairly trustworthy results when carefully carried out, and is that adopted by the United States Pharmacopoeia, which, however, is in error in accepting as the per cent. by weight the uncorrected figure taken out of the alcoholimetric tables. It is better to make a direct determination of the alcohol, and better still to carry out, on the same portion of the wine, both methods.

The direct determination by distillation ought to present no difficulties, and yet, when samples of the same wine were distributed a few years ago to members of the Association of Agricultural Chemists for independent analysis to test the methods of analytical procedure, the only determination which showed glaring discrepancies was that of alcohol. Some results reported were more than twenty per cent. below the correct figures. I can account for this only on the theory that some of the chemists used for the distillation such apparatus as the dealers generally supply for this purpose, and that they trusted their apparatus so implicitly that they did not assure themselves that it did not leak, and did not even take the ordinary precaution of making the test in duplicate.

It is hardly needful to say that alcohol in mixtures not con-

taining other volatile substances is determined by distilling off the spirit and taking the specific gravity of the distillate as a measure of the proportion of alcohol it contains. The operation is exceedingly simple, and there should rarely be any appreciable difference between the results of duplicate experiments.

One hundred cubic centimeters of the wine is a convenient quantity to use; there is little advantage in working with a larger quantity. A smaller amount should not be taken unless material is scarce, when with care a fair determination can be made on 25 cc. or even less. It is advisable in all cases to make the determination in duplicate, but this is a matter of course in ordinary chemical routine.

A glass flask, capacity 400 cc., connected securely with an efficient condenser is all that is required in the way of apparatus. For a receiver a 100 cc. measuring flask may be used. Loss of alcohol by evaporation is inappreciable if the condenser is reasonably efficient, and the delivery tube passes well into the flask.

The wine must be brought to a temperature of 60° F., 100 cc. measured, with the same flask to be afterwards used as a receiver the flask is to be rinsed twice, each time with about 50 cc. of water, which is to be added to the wine in the distilling flask. If the wine contains much acetic acid, it is necessary to add a little sodium carbonate, or preferably a little calcined magnesia to neutralize it. In the case of a sound wine containing less than one per cent. of acetic acid, neutralization is unnecessary and is better omitted. Under the conditions of the distillation but little acetic acid will pass over, and in the case of a sound wine could rarely affect the specific gravity of the distillate enough to bring down the apparent alcoholic strength one-tenth of one per cent.

Heat is to be applied by a small sand bath, and the distillation carried on rapidly until the flask is filled nearly to the mark. The heat is then discontinued, the receiving flask corked and shaken and then brought to standard temperature. The measure of 100 cc. is now made up by addition of distilled water that has been recently boiled, the mixture again shaken and brought exactly to 60° F., and the specific gravity of the fluid taken with the pycnometer, or its alcoholic strength tested with a delicate, accurately graduated alcoholometer. Of course, the former is preferable as being more exact: if the alcoholometer is used, its readings must first be verified by testing it at several points on the scale with mixtures of alcohol and water of accurately known strength. Suitable instruments for such delicate tests are hard to find in this country. If used at all, these alcoholometers must be kept strictly clean, and care taken not to touch with the fingers the portion of the stem bearing the scale.

#### CONDENSATION AFTER DISTILLATION.

The specific gravity of the distillate should not be taken immediately after it is brought to standard volume. The condensation which takes place when alcohol is mixed with water seems not to be completed immediately. Either for this reason, or because of the escape of gases that have passed over in the distillation, or from some other cause, the density of the distillate increases perceptibly during the first hour after the distillation.

Such a slow condensation of mixtures of alcohol and water seems to have been known or suspected by Fownes at the time he made his alcohol table, but no mention of it is made to my knowledge in recent treatises. I have repeatedly—certainly more than twenty times—taken the specific gravity of a distillate immediately, and again after an interval of half an hour, an hour, six and twelve hours. In only one instance there was no increase in density after the first weighing. In every other case there was a notable increase during the first thirty minutes, and in some the maximum was not reached during the first hour. The maximum once reached, there was no further change. The distillates tested ranged in strength from ten to forty per cent. by volume, and the apparent falling off in strength was generally as much as one-tenth of one per cent. and in some cases nearly three times that amount. Indeed this source of error I found more important than any other except that which might rise from thermometric errors. In exact work, therefore, the distillate should be brought approximately to 100 cc., set by at least an hour, then brought accurately to standard temperature and volume, and the specific gravity taken.

In the instructions for estimating alcohol by distillation sufficient stress is not generally laid on the necessity of measuring the wine before distillation at standard temperature. The measurement need not be made necessarily, it is true, at standard temperature, provided the distillate be made up to an equal volume at the same temperature. The temperature must, of course, be brought to 60° F., when the specific gravity is taken, or else the necessary correction must be applied.

Where a large number of determinations of alcohol have to be made in warm weather, it is troublesome to bring the wine to an initial temperature of 60° F., and equally troublesome to secure a final weighing at 60°. If the temperature of the air is 80° or more, unless it is a very dry day, moisture will deposit so rapidly on the pycnometer that its true weight cannot be found, and in any case an accurate weighing could not be made owing to air currents. It is necessary to use a pycnometer so constructed that its temperature can be brought to that of the atmosphere without overflow and loss of the contents. Under such circumstances it is better to conduct all the operations at the room temperature, and then apply a correction. The tables of Tralles supply data for the correction, and their use simplifies greatly the analysis.

It is advantageous in the case of wines containing less than 15 or 20 per cent. of alcohol to take for the estimation 200 cc. of the wine, rinse the measuring flask with a small quantity only of water and then distill off 100 cc., which will contain therefore just twice as much alcohol, by volume, as the wine. If this is done, all measurements must be made at standard temperature, if very exact results are required. The advantage of the plan is that a difference in alcoholic strength of one per cent. makes a much greater difference in specific gravity in a mixture containing 25 to 40 per cent. of alcohol than in one of one-half that strength. The distillation proceeds more rapidly, and the results obtained are more exact.

A well constructed metal apparatus made especially for this

use is more convenient to work with than an extemporized glass one. The capacity of the boilers should be 350 or 400 cc. The connections should be vapor proof. There are generally accompanying the apparatus, as made for example, by Saleron of Paris, suitable measuring glasses and delicate alcoholometers, together with a full table of temperature corrections. The metal stills offered in this country for alcohol determinations are a delusion and a snare. The boiler is too small, the joints leak, and the alcoholometers are incapable of giving accurate readings.

Of course all apparatus must be tested before dependence is put on conclusions based on its correctness. This applies particularly to pycnometers. One must make sure by actual test that the counterpoise is of the exact weight of the empty bottle, and then that the bottle when filled with distilled water at standard temperature contains exactly the quantity it ought. If it contains more or less, note the difference and apply a corresponding correction to all specific gravities taken with it. Thus, if the pycnometer is marked 50 grammes, and is found to hold at 60° F., 50.011 of distilled water, the "error of the instrument" for alcohol determinations (in which the standard temperature is customarily 60° F.) is .00022, multiplied into the specific gravity (correction subtractive). For example, suppose the contents of the bottle weigh 48.816; the uncorrected specific gravity is 0.97632, correction  $-.00021+$ , corrected specific gravity  $0.97632-.00021=0.97611$ .

#### ACIDITY OF THE WINE.

Wine made from grapes contains as its acid constituent mainly tartaric acid and potassium acid tartrate, besides a little acetic acid formed by secondary fermentation. The volatile acid, chiefly acetic, may be separated by distillation, preferably with the aid of steam. Place 50 cc. of the wine in a flask, into which a current of steam may be carried, heat the contents of the flask to boiling and then pass steam through it until 200 cc. of the condensed vapors have been collected. Titrate the distillate with decinormal soda or potash, using phenolphthalein as indicator. Each cc. of the alkaline solution corresponds with 0.006 grm. of acetic acid, or a percentage of 0.012 on the amount of wine used. (For a strictly correct result this figure must be divided by the specific gravity of the wine, but it is customary in wine analysis to take 100 cc. as tantamount to 100 grams.)

A less troublesome method of estimating the volatile acids is to evaporate some of the wine (25 cc.) repeatedly to dryness in a flat dish on the water bath. The heating of the practically dry residue on the water bath should be continued in all seven hours to insure expulsion of all the acetic acid. The residue is then dissolved in pure distilled water and titrated with decinormal alkali, the result being deducted from that of the next experiment, in which the total acidity of the wine is determined.

#### TOTAL ACIDITY

Free the wine, if necessary, from carbonic acid by repeated shaking in a bottle partially filled. Measure 25 cc. into a beaker, add phenolphthalein, or in case of a colored wine perhaps preferably fluorescein or eosin, and titrate with decinormal po-

tassa or soda. Colored wines may be first shaken with purified animal charcoal perfectly neutral to decolorize. If the volatile acids have been determined by the direct method, subtract from the amount of alkali consumed the quantity required to neutralize the volatile acids present (one-half the quantity used in the experiment, since in that 50 cc. of the wine was used—in this only one-half as much), and allow for each cc. of the remainder 0.0075 gm. of tartaric acid.

On the other hand, if the indirect methods have been used, take as fixed acid the result of the titration of the residue after evaporation, calculating this into terms of tartaric acid; the difference in the results of the two titrations, calculated as acetic acid, is taken to represent the volatile acids.

Tartaric acid and potassium acid tartrate may be respectively determined by the following simple method: Ten cc. of the wine is mixed with 25 cc. each of alcohol and ether and set aside in a cool place 24 hours. The potassium acid tartrate crystallizes out, is collected on a filter, washed with a small quantity of a mixture of ether and alcohol, dissolved in distilled water and titrated with decinormal soda or potassa. Another portion of 10 cc. of the wine is measured out at the same time as the first; to this is added one-fifth of the quantity of decinormal potassa solution (not soda) that previous experiment has shown to be sufficient to neutralize it accurately. This portion is treated also like the former with alcohol and ether, but in this case free tartaric acid is converted into potassium acid tartrate. Each cc. of decinormal alkali used in the first titration corresponds with 0.0188 gm. of potassium acid tartrate. Each cc. of alkali required in the second titration in excess of that used in the first corresponds with 0.015 gm. of free tartaric acid. The weak point in the foregoing (Berthelot-Fleury) method is in the assumption that the potassa added will suffice to precipitate all the tartaric acid present, while leaving sufficient excess of acid to insure the formation of acid tartrate from the whole of the tartaric acid. I believe that it would be safer to add to the second portion of wine 0.03 gm. of potassium acetate, which would surely suffice to convert all tartaric acid present into a potassium salt without any possible danger of forming a neutral tartrate of any of it.

#### DETERMINATION OF POTASSIUM.

Potassium in a wine is determined by a method (Kayser's) similar in principle to that just described. To 50 cc. of the wine are added one gram of tartaric acid and 0.35 gram of pure sodium hydroxide and finally 75 cc. of alcohol (94 per cent). The mixture is then left 24 hours in a cool place, the precipitated potassium acid tartrate is collected on a small filter and washed with 50 per cent. alcohol until the filtrate and washings measure 130 cc. The filter containing the precipitate is then transferred to the beaker in which the precipitation was made, the precipitate dissolved in hot water and titrated with decinormal alkali, each cc. of which represents .0047 gm. of potassium oxide. To the final result must be added 0.008 (?) gm., representing the potassium acid tartrate which remains in solution.



## DETERMINATION OF GLYCEROL.

Glycerol in small proportion is always present in genuine wines. In a factitious wine it may be wanting or it may be present in abnormal quantity. Hence a determination of this constituent is of value. In dry wines the separation of the glycerol is comparatively easy; 100 cc. of the wine are to be evaporated in a porcelain capsule to about 10 cc., a little quartz sand and milk of lime added and the evaporation continued nearly to dryness. The residue is then mixed thoroughly by trituration with 5 cc. of 90 per cent. alcohol, using for this purpose a small glass pestle—a short piece of stout glass rod with the end thickened by heating with the blowpipe answers admirably. More alcohol, about 50 cc., is added and the mixture boiled a few minutes on the water bath. After subsidence of the solid matters the alcoholic fluid is filtered into a 400 cc. flask. The residue is boiled with three successive additional portions of alcohol, 30 cc. each, the alcohol is distilled (not too rapidly) from the solution after addition of a little quartz sand. When the fluid is reduced to about 100 cc. the flask is transferred to a water bath and kept there until the contents become quite syrupy. It is then partially cooled and 10 cc. of absolute alcohol added, the mixture well agitated a few minutes, 15 cc. of anhydrous ether added, the flask securely corked and allowed to stand until the precipitate adheres to the sides and bottom of the flask. The clear fluid is then decanted into a stoppered flask, the residue washed twice with 3 cc. of a mixture of absolute alcohol two volumes, pure ether three volumes. The ether-alcohol is evaporated off by a gentle heat, leaving a residue of impure glycerol. To this is added about a gram of potassium pyrosulphate and 1.25 cc. of glacial acetic acid, the flask stoppered and heated two hours in the water oven. The glycerol is converted in this manner into triacetin. The residue is moistened with a few drops of absolute alcohol and repeatedly extracted with anhydrous ether, the ethereal solution evaporated in a tared beaker, heated four hours at exactly 105° C., cooled in a desiccator and quickly weighed. The weight divided by 1.514 gives the quantity of glycerol contained in the wine. The triacetin should be cautiously ignited and the weight of any ash found deducted before dividing by the constant 1.514.

In the case of sweet wines the first part of the process is modified in the following manner. One hundred cc. of the wine is evaporated on the water bath by a syrupy consistence, a little quartz sand added, and the mixture extracted with four successive portions of absolute alcohol, 50, 30, 30 and 30 cc. The alcoholic solution is mixed with 210 cc. of absolute ether, shaken well and allowed to stand until clear. The fluid is decanted into a flask, the residue washed twice with a little ether-alcohol, most of the solvent distilled off, the residue dried on the water bath, dissolved in water, evaporated again nearly to dryness and then treated precisely as in the case of a residue from the first evaporation of a dry wine.

## DETECTION OF ARTIFICIAL COLORING.

In addition to the tests given in the U. S. Pharmacopoeia for artificial colors in red wines, the following are of value: The Cazeveuv test consists in adding to 10 cc. of the wine 0.2 grm. of yellow oxide of mercury, shaking together during one minute and filtering. The filtrate in the case of a pure wine will be colorless or yellow. A red color is indication of the presence of an aniline dye.

The method of Sostegni and Carpentieri serves to identify a number of coloring agents. About 200 cc. of the wine is evaporated to half its volume to expel alcohol. To the fluid is added 3 cc. of dilute hydrochloric acid, U. S. P., together with some filaments of fat-free wool, and the mixture boiled five minutes. The threads are then removed, washed with cold water acidulated with hydrochloric acid, then with hot acidulated water, finally with pure water, and then placed in a boiling mixture of water 50 cc., concentrated solution of ammonia 2 cc., which extracts the color. The threads are replaced with fresh ones, the fluid acidulated with hydrochloric acid and boiled five minutes, when the threads assume the following characteristic colors: Rose red, indicating Ponceau-red; pale rose red, indicating safranin; rose red to violet, vinolin or Bordeaux red; straw yellow, Tropaeolin 00; light yellow, Tropaeolin 000.

Fuchsin and orseille are detected by adding to 20 cc. of the wine, 10 cc. of solution of lead acetate, warming, shaking together and filtering. To the filtrate is added 2 cc. of amyllic alcohol, and the fluids shaken together. If the amyllic alcohol is colored red, separate it into two portions; to one add hydrochloric acid, to the other ammonia. When the color is due to fuchsin, it will be discharged in both cases; if due to orseille the ammonia will change the color to purple violet.

## DETERMINATION OF SALICYLIC ACID.

Salicylic acid is easily separated from wine by acidifying with sulphuric acid and shaking out with ether. The ethereal solution is evaporated to dryness and then treated by one of the two following processes. It may be warmed carefully with one drop of concentrated nitric acid, according to Spica, and then treated with a few drops of ammonia. Pieric acid is formed, recognized by its yellow color—the solution will readily dye a thread of fat-free wool. The alternative plan is that of Gerard. The residue is extracted with petroleum ether; the remaining portion, which is now free from tannin, is dissolved in water and treated with a drop of a very dilute solution of ferric chloride, when salicylic acid is betrayed by the appearance of a violet red color.

In conclusion, the writer desires to express his indebtedness for many details of analytical procedure to the chapter on wine analysis in Wiley's *Principles and Practice of Agricultural Analysis*.

Mr. Brown—"It seems to me, Mr. President, if you are going to have this report of the Committee on Trade Interests, now is

the time to have it. The chairman is ready to report, and it seems to me that while these papers are interesting enough, we better have the report now."

The President—"If agreeable to the Association, we will listen to the report of the Special Committee on Mutual Manufacturing."

REPORT OF THE COMMITTEE ON MUTUAL MANUFACTURING TO THE M. S. P. A. ANNUAL MEETING,  
AUGUST, 1898.

Mr. President:

Your Committee on Mutual Manufacturing beg leave to report their observation on this subject as it has come before them since our last annual meeting, and while they do not expect to bring to your notice any particular new departures in this line, they nevertheless wish to express their belief in the practicability of this method of doing business.

Throughout the cities visited during the past year by the chairman of this committee, it has been his privilege to personally investigate two manufacturing institutions in the drug line—conducted solely by the retail drug trade—one located in Chicago, Illinois, and the other in Buffalo, N. Y. Both of them seem to be prospering and to have settled their operations upon a good, substantial basis.

The products turned out by these companies, as far as one might be able to judge without using them, appear to be first-class in every particular, made by competent pharmacists and put up in a creditable and satisfactory manner.

As a medium of profit to the retail dealer—there certainly seems to be money in handling a line of these products, not only to increase their actual profits in the sale thereof, but to conserve to themselves the trade in certain lines of pharmaceuticals that, as you know, have been slowly drifting away to other sources.

These concerns sell only to retail dealers who agree not to cut prices and who are actually members of the drug trade. This keeps the products out of department stores and does not subject them to the same suicidal competition that prevails on the regular patent medicine and proprietary articles that are offered on the general market, and upon which at the present time so many are handling without any profit to themselves.

The question of "how much benefit is to be derived from an association of this description" is a broad one and it should be looked upon in the broadest sense. First, as a question of profit. It may be freely accepted that products purchased and sold under such conditions, as offered by these mutual manufacturing companies, certainly do give a larger ratio of profit than similar articles sold on the open market without any regard to the interest of the retail drug trade.

In the matter of protection, if through the combined influence of the retail dealers this class of goods could be made

popular among the users thereof, it naturally follows that a trade so secured must in time be a greater source of revenue to the retail dealer than other products afford, from which the profits have been eliminated by ruinous competition from outside sources. It would be impossible for the department store, the grocery shop or any other place to make these preparations the subject of their advertisements as a bait to draw customers, and therefore it does seem that it is a wise policy for the retail trade collectively to adopt, and make an earnest, determined effort to handle such preparations in their business.

If there are any profits in manufacturing—and the growth of the wealth of many manufacturing houses in this country attests to this fact—then it would seem that the retail dealer, by mutually working together, could secure for himself this same degree of profit that is now going to other sources. What can you expect from the makers of proprietary goods when you call to mind the recent action on the part of many proprietary medicine houses, who, taking advantage of the recent taxation on their products, have advanced their prices beyond the actual cost involved, so as to secure for themselves a greater margin of profit, and who take no action to protect the retail dealer, but permits him to struggle for an existence on the sale of their goods. You can readily see how much help you can expect from this source, which practically owes to the retail drug trade the very existence of their business, because if the retail druggists did not sell their products and so standardize them through the retail drug stores, their output would be a decidedly unimportant matter. We say nothing of the patriotism shown by their action. It, therefore, behooves us as a class to interest ourselves deeply and energetically with the sale of preparations upon which we can make more money and be sure of protection in their output. There is no doubt but what almost every retail druggist believes in this idea, but the great evil that prevents its rapid development is the individual druggist himself. In the past, the trade has become accustomed to expect that the manufacturer of any product must create the market, without any assistance from the retail dealer, who expects to hand out the goods at a good margin to himself and with no effort.

Now, if mutual manufacturing concerns are to succeed, the one who makes the effort must be the retail dealer. Consequently, this means a change of trade principle, and the great question is, "How far will the individual druggist bestir himself into an energetic advocate of this principle by practically buying these goods and selling them?"—doing his own advertising, as it were. If this could be brought about, there is no doubt but that in a short time greater profits and full protection could be afforded on the products sold by the retail dealers.

Another great element that has to be overcome in this method of doing business is the suspicion of the retail dealer in regard to any new departure. If a patent medicine man comes along and offers a certain quantity of his product, and guarantees advertising disproportionately to the sale he has made, fills up the dealer with glowing stories of success in other localities— which the dealer never takes the trouble to investigate—he is

very apt to sell him for the benefit of this promised advertising, and the result generally is that the retailer has a few dozen of some special product on his shelves in which his money is invested and which eventually becomes a total loss on their hands—the advertising failing to materialize. These frequent gold brick operations have made the druggists very suspicious men, consequently, when a purely legitimate business proposition, such as mutual manufacturing, is presented to them, and upon which an effort on their part is required, they are generally in grave doubt if it can be made successful. They seem to forget that if they willingly lend their help to such a departure it cannot but prove successful. Therefore, if the retail drug trade wish to emancipate themselves from the incubus of selling a large percentage of their wares, made by people who do not protect them, and who care not whether they make any profits or not, they will have to assume a new position and co-operate in pushing the sale of those goods that are profitable and on which they are sure of protection.

In the past, it has been canvassed by this Association, the advisability of creating in our State a mutual manufacturing drug concern. The writer has advocated this strongly, and I believe it would be possible to accomplish it, but is it wise for one or two States to enter into such operations? Is it not better to concentrate our efforts on a less number of such concerns and develop them so they may be able to supply druggists at low rates and consequently at much greater profit?

I have in mind at the present moment the United States Pharmacal Company of Chicago, who offer a very complete line of pharmaceuticals and non-secret preparations. There is no shipping point more easily reached from Michigan than the City of Chicago. Here is an established laboratory, ready to do business, and who invites the Michigan druggists to join with them in this departure. We would earnestly suggest that each druggist carefully examine what they have to offer, and if possible lend them their energetic support. They are represented at this time with a full line of products and the gentleman in charge will be happy to explain the workings thoroughly to any one.

In our own State we have but one company based on mutual principles, and that is the Pharmacists' Cigar Co., of Detroit, which so far has proved a successful factor in this line. The six months ending July 1st of this year, shows a desirable increase of business over the past six months of last year, and which could be made much greater indeed if the same inertia, spoken of before, on the part of the drug trade, could be overcome, and if they would give their energetic and interested support to its welfare.

Necessarily, concerns of this nature sell their goods at lower margins than the ordinary manufacturer. In fact, seek to place you on a manufacturing basis. Now, if this is true, their profits must be necessarily small, and it lies with the dealer himself to make larger profits on his sales, but to encourage and keep in existence these companies, the retailer must be prepared to withstand the insidious advances of competition and have determination of purpose enough to stay by their own concern in

pushing the sale of their products and assist them in every way to develop. Otherwise, you cannot look for success when advancement of such manufacturing rests upon the support of the retail drug trade who are its members.

If the retail druggist is sincere in his desire to benefit himself through this method of co-operation, then he should do so each day and every day and all day long.

There are a few people that have given this question of mutual manufacturing much thought, but I note where this has been advanced and supported that the plan has met with wonderful success. I quote as follows from the Congress of British Co-Operative Societies:

This will give you some idea of what may be done if this policy is persistently pursued, and we hope that the retail drug trade, individually and collectively, will soon take sufficient interest in this method of doing business that will cause them to give it their earnest and persistent support.

Respectfully submitted,

C. N. ANDERSON,  
Chairman.

Mr. President—"Gentlemen, the report is open for discussion."

Mr. Anderson—"I would like to say one more word in connection with that. There was a letter written to myself (which was handed to Mr. Phillips), by Mr. Snow, of the U. S. Ph. Co. In that letter there was a request that a committee be appointed by this Association to investigate the matter and report upon the methods, and that in connection with this paper it would be wise to bring that matter up."

The President—"If agreeable to the Association we will listen to the letter."

(Mr. Anderson read the letter.) The question in this letter is the appointing of such a committee for investigation.

The President—"Gentlemen, the question of mutual manufacturing is before this Association and we are ready for remarks on the question.

Here followed a running discussion.

This discussion resulted in a motion that a committee be appointed to investigate the plans and methods of the U. S. Ph. Co., or any plan that might be submitted to it and report at the next annual meeting.

Supported.

Carried.

(There seems to be some misunderstanding as to when this committee should report, but as the stenographer's report plainly states that the report shall be made at the next regular meeting, the committee will act accordingly.—Secretary.)

Committee on President's Address read report.

Mr. President and Members of the M. S. P. A.:

Your committee to whom was referred the President's address would beg to report that they have examined the paper and find it a very ably written one, showing a great amount of painstaking labor. There were many very salient points in it, among which your committee have selected the following:

The subject of mutual Manufacturing is recommended by the President and your committee concur with the President in the matter, but this is a subject to be handled later under the Special Committee report.

The recommendation that every member cultivate more studiously the good will of his physician is one not to be overlooked and should be borne in mind by us all.

The suggestion as to the holding of the meetings of the M. S. P. A. at the same time and place as the Michigan Medical Association is one that is open to debate and we recommend it to your meeting for discussion.

The matter of organizing a National Retail Druggists' Association seems to the minds of your committee only dividing the strength of the druggists of the country. Some one has said that the trouble with this country was that we had too many societies and associations. Your committee fails to see how a N. R. D. A. could accomplish any more holding a meeting in conjunction with the A. Ph. A., than the commercial section of that Association can accomplish. Why not join the A. Ph. A., attend its meetings, confine yourselves to the meeting of the commercial section if you will and keep our strength concentrated.

Your committee endorse the recommendation relative to publishing the fact on the wrapper of a patent, when such remedy contains poisonous alkaloids, etc., and further recommend that the discussion of this question be left to come up under the report on revision of pharmacy law.

The matter of recognizing the good will and intentions of the Wholesaler and Traveler is certainly very thoughtful. Your committee heartily joins in this, as no doubt does every member of this Association.

The comment on the good work of the Board of Pharmacy is timely and we as a committee concur in all that is said.

Respectfully submitted.

E. F. PHILLIPS,  
O. EBERBACH.

The President—"You have heard the report, what will you do with it?"

Motion to accept and adopt the report.

Carried.

The President—"If agreeable to the Association we will now listen to the papers."

Mr. Paull—"I have prepared a paper on 'Skidelines.'"

## SIDE LINES IN A DRUG STORE.

L. PAULY, GRAND RAPIDS.

No apologies are necessary for a druggist who keeps the proper kinds of sides lines, nor for an association like ours to consider the question which of the many side lines would be the most profitable to handle without interfering with the ethics of the drug trade. The exigencies of the trade require from most of us that we add some additional line to eke out the scanty profits in legitimate drug business.

Soda water, with its accompaniments; cigars, stationery, confectionery, and in some places paints and oils, have so long been associated with the drug business that they are hardly considered side lines any more, and a small line of hardware and optical goods have been added by many, and have proven quite a source of profit; but the ideal side line, and one which appeals to the intelligent pharmacist most strongly, on account of the professional and scientific portion of it, is in my opinion "the photographic supply line."

To a very large extent this business belongs to the pharmacist. Before the days of the photographic supplies houses, the photographer used to call on his druggist for his developers, intensifiers, fixers, silver and gold, and other odds and ends in chemicals. The druggist had no trouble in making such preparations from his usual stock, perhaps he had to carry a little heavier stock of silver nitrate or sodium hyposulphite, but that was all. Gradually as amateur photography became more and more of a fad the line of chemicals had to be increased and a supply of hydrochinone, eikonogen, metol, amidol, etc., had to be kept. This was already a little "on the side," but still legitimately professional, as was also the necessity to keep a little extra glassware, such as graduates, mortars, funnels, etc., but here most druggists stopped. Now, I believe that it would be quite profitable to add a line of other photographic goods such as plates, paper, lamps and other dark room supplies. I would not cater to the professional photographer. These men have access to all kinds of catalogues and are overrun by representatives of photo-supply houses with offers of all kinds of discounts, which cut the profits out of the business.

The trade with the amateur is profitable and highly interesting. Unfortunately the list of plates and paper is almost as large as the list of patent medicines, but it is not necessary to carry all or even nearly all. You will soon learn which kinds your customers want and others can be speedily procured when wanted. To these should be added an assortment of films and perhaps a few cameras, just for samples and comparison. Almost any of the reputable manufacturers will furnish a dealer in good standing, an assortment of instruments on commission.

In an unused corner of your back room you want to construct a little cubby-hole and call it a "Dark Room," the use of which you offer all amateur photographers free of charge. You want to let everybody use it, whether a customer of yours or not, for rarely anybody enters its mysterious environs without calling for something or other before he leaves. Perhaps his



developer don't work or his intensifier is not intense enough; something of that kind almost always happens. And then, how pleasant it is when the young lady (and you know the young lady is very numerous among amateur photographers), gets into trouble during her operations, and you have to spend a few minutes, more or less, with her in the dark room helping her out of her dilemma and instructing her in the work. Such little attentions are always gratefully acknowledged. Even if you use a little of your own chemicals in assisting, your pupil is only like "casting bread upon the water" and will bring you good returns.

The amount of capital invested need only be very light, unless you should want to cater to the professional trade, and this I would consider unwise unless you can do it on a scale large enough to compete with regular photo-supply houses. The profits, while not large on specific photo goods, such as plates, films, cards, etc., is large on chemicals supplied, as some of the very cheapest articles such as sodium carbonate, potass, carbonate, sodium sulphite, potass bromide, etc., are included in the list.

The advantages of photo supplies for amateurs as a side line for druggists are, that it is a line largely akin to the drug business; that it requires no additional help or increased expenses; that it is pleasant and congenial; that its profits are fairly good and; that it can, by means of free dark room and courteous treatment of your customers, be made an inexpensive and very advantageous advertisement of your business.

One word of warning I would add to anyone who wishes to enter this line of business, and that is, never to use anything but the very best chemicals. None "just as good" will answer. You want to remember that you are dealing with the amateur whose knowledge of chemicals is very limited at the best and who would not know how to help himself if things did not work exactly right. His formula calls for so many grains of this and so many ounces of that and he must have things absolutely right or his work is spoiled. Absolute purity of his chemicals and accuracy in weight and measure are most essential.

#### PHOTO SUPPLIES AS A SIDE LINE IN A DRUG STORE.

BY E. E. CALKINS, ANN ARBOR, MICH.

Every druggist has had more or less call for the chemicals which are used by amateur photographers. Undoubtedly many druggists have done as I did—first bought chemicals for my own use and then gradually worked into the supply business. In fact, there is no doubt that there are druggists here that could give me pointers on this subject, if so I shall be glad to hear from them. I have found that it can be worked very profitably as a side line, for several reasons. In the first place the druggist can make many of the developers and toning solutions, and thus save a profit that would otherwise go to the manufacturers. Again, cameras and apparatus, together with the sample photographs that every dealer should have, are very good materials for a window display, making the store more attractive as well as selling the goods themselves. A druggist generally has better

windows for display than his neighbor the photographer, who often attempts to handle these supplies, and he can supply the chemicals more satisfactorily than opticians or department stores because of available weights and measures.

The requirements may be briefly summed up as follows:

An investment of from \$100 to \$500.

A dark room for developing and for changing plates and films.

A little ability as a salesman—the more the better.

A disposition to help amateurs out of their difficulties and, lastly,

An ability to help them by reason of actual knowledge and experience.

The money invested can easily be turned two or three times a year, so that to do a business of \$1,000 about \$300 is required as a capital. This may be increased at the beginning of the season and decreased toward the end of the year. Of course the largest sale comes during the summer months, but, unlike bicycles, there are many cameras sold for Christmas and all through the winter months. Supplies, too, are in demand during the winter. Snow pictures, flashlight pictures and interior work in general call for supplies, and many amateurs print during the winter from negatives that they make in the summer.

Like every other business, there are some leakages to be avoided, such as unsalable cameras, cameras that are too cheap and are consequently constantly coming back on the dealer's hands for repairs, carrying too many kinds and too large quantities of sensitive paper so that it spoils before it is sold, and sensitive films which are dated and cannot be sold after they reach a certain age. These of course can be avoided in a great measure by careful buying.

In buying a stock there are two persons whose advice is, as a rule, to be avoided—the professional photographer and the man who has taken pictures for years with the same old camera and thinks that no one ought to use anything that he has not used in years gone by and that snap-shot cameras are of no use at all. The general public do not see through the eyes of either one of these. They want the newest up-to-date camera on the market and as a rule the one that is advertised. It is not necessary to sell all makes of cameras, plates, etc., any more than it is necessary for a cycle dealer to handle all makes of cycles. It is well to have a representative stock, i. e., to have a camera of each type, but it is not necessary to have more than one make, for instance, of plate cameras, 4x5 size to sell at \$5.00.

Small sizes, under 5x7, and small prices, under \$15, are in most demand and there is less cutting on these than on the higher priced ones. You can sell ten cameras at less than \$10 as often as you can sell one at \$25, and the ten users of low-priced cameras will use ten times as many dollars' worth of supplies.

In film cameras and films it is safe to tie to the Eastman Kodak Co. I was at Niagara Falls a short time ago, where cameras are thicker than bicycles. There were many more of Eastman kodaks to be seen than of all other makes combined. This company have a sufficient variety of film cameras to suit

almost everybody, and every camera can be depended upon to make a reasonably good picture. Very little repairing is required by reason of shutters, etc., getting out of order. They are the only line of film cameras on the market on which the price is not cut. The Eastman Co. maintain their list prices by requiring every retailer to sign a contract to maintain them, and they refuse future shipments in case a dealer does not live up to his agreement. This is an object-lesson for proprietors in other lines.

In plate cameras we are not so fortunate, because all the best advertised plate cameras are cut, and in most cases it is not at all difficult for a purchaser to get discounts direct from the manufacturers themselves. The Sun-Art Photo Co. have started out bravely on the Eastman plan, but their price list is about the same as that of other manufacturers, and it is difficult for a retailer to get list prices for their goods when equally good cameras can be had at a discount.

Magazine cameras have never been popular, in spite of serious attempts on the part of several manufacturers at different times to make them go. One reason is that a dozen or more plates in a camera make it heavy to carry around compared with films, and another is that they are complicated and apt to get out of order. The price, too, has usually been prohibitive. But folding plate cameras in 4x5 and 5x7 sizes, will probably, always be salable, as will also box cameras in sizes 4x5, 3¼x3¼, and 3½x3½, all to use plate holders.

It is very easy of course to have cameras left on your hands at the end of the season, and while they are more staple than cycles, there is very frequently some improvement that makes them more unsalable the next year. Cameras, paper, and some plates are bought to best advantage from the manufacturers on account of better discounts. It is better to buy of the larger jobbers than of the smaller ones for the same reason. It is well to keep some standard brand of plates at list prices unless so near to the city that it is necessary to compete with cut prices on all brands. I find that I can get full list price for Seed plates and make a good profit on Stanley plates by selling them at a discount because of the greater wholesale discount and it still gives me a reputation for selling plates cheap.

I have said nothing about supplies for galleries. It requires more capital to handle plates by the case and other things in proportion, and it brings you into competition with the small jobber who often cuts the prices pretty low. For my part I have been satisfied to take what gallery trade came to me and let it go at that.

I have never found it profitable to sell cameras on the installment plan. As a rule, if a person cannot pay in full for his camera when he gets it, he will be unable to make his payments and pay for the supplies that he will use besides.

When Eastman's Solio paper was reduced in price it looked as if my receipts from that source would be reduced, but I began to push the cabinet size in gross packages at 75 cents and the result was that we sold more paper than before and more toning solution with it.

I think that it will pay to push Velox paper, because it can be worked in the evening and requires much less time than

ordinary printing out papers. People who have been in the habit of having their printing done can find time to do it themselves with this paper.

Cramer's plates are not adapted for amateur work. They are good, but too difficult.

Take it all in all, photo supplies make a very nice side line for any druggist who will give it the attention that it deserves, but there is not enough of it to make it profitable for every druggist to carry a stock. If one man in a town of ten thousand or less is doing a good business, don't try to get it away from him. There is not enough for two. Push some other line instead. But whatever you push—push hard.

Discussion of the subject opened as follows:

Dr. Ward—"I would say in regard to photography, that so far as I am concerned, I sell a great many plates, films, etc., and so far I have found it profitable. I worked into the trade by catering the local photographers. I am somewhat of an amateur photographer myself and take some interest in the study of photography. Photographers come to me to buy their gold, etc., and I found that by buying in large quantities I could sell just as cheap to the local photographers as they could buy direct from the wholesale houses. The profits are not as large as on prescriptions, but are very good as a side line.

"Of course these are merely hints thrown out and anybody that wants to take up this line (I think it comes directly in the line of druggist's work) will find it very interesting as well as profitable.

"I have a plan that works very well as an advertisement, and by the way, I prepared a paper on advertising, that if you want to listen to it at any time, I will be pleased to read. A young man that I have working in the store has taken pictures of the store, churches, and such like, and I have them displayed in the window and on the counter. I have signs made and when I want to sell my tooth powder or anything like that I say that by buying a 25-cent bottle of one of them the purchaser can have his choice of one of these pictures. I find this scheme very profitable, as well as a good advertising medium, as I put my advertisement on the back of these pictures and it answers as a permanent advertisement. The pictures will be kept, and in that way will introduce the preparations and get them started, and if they are good and reliable, which they should be, and should not be put out unless they are, they will undoubtedly get a good trade.

"I would say that I have a few samples with me, but they are not made very artistic, but nevertheless answer the purpose of calling people's attention to the articles advertised.

Paper on advertising, read by Dr. Ward.

## ADVERTISING.

The subject of advertising *inextenso* is one which would greatly exceed the limits of a short paper such as would be appropriate to an occasion of this kind. The word itself is derived from the Latin verb "advertise," from *ad* to and *verto* to term, meaning to term to, or call attention to, but in its generally accepted application it means certain methods employed by business men to call the attention of the public to the goods or services which they wish to buy or sell, and in this sense a volume could be written without exhausting this subject. Even in its special application to the drug business much could be said and written. Nearly all of our drug journals now have special departments relating to the subject, which is well worth study, and *ad. writers'* ads are becoming more and more conspicuous in their advertising pages. Advertising is developing into a science and an art; and this is necessarily so, for as the products of scientific research and inventive genius become more and more extensive, the vendor of his wares, like the operator in an exchange pit, must shout, and shout loud, if he wishes to attract attention. It is impossible for the average individual to keep himself informed of the advances made in discovery and invention. He must have his attention called to them, and out of the many the fittest survive. As the necessity for advertising increases, the methods multiply and develop. From a simple sign over the door, announcing that so and so is an "Apothecary," we now have the greatest talent both in literature and art, and the greatest technical skill obtainable brought into requisition as a means; so that some of the advertisements in our current periodicals show as much art and skill as the letter-press, and when I hear a person say that they never read the advertising pages I am inclined to set them down as a back number. In fact, the public hardly realized that it would be impossible to furnish the excellent papers and magazines which we now have so cheaply if it was not for the advertisements they contain. I say, "Blessed be the advertiser." But the advantage and necessity for advertising in general being admitted, I shall confine myself to the subject of advertising as it relates to the retail drug business, and endeavor to explain what I conceive to be the fundamental principal involved, and the methods which may be pursued, and give my opinion as to the best. As the object of advertising, as I take it to be, is to dispose of our wares, other things being equal, it is a law of trade that the one who is known to sell the cheapest will get it, but the drug business is not only a trade, it is to a certain extent a profession. It has a professional and a mercantile side, hence we find some druggists who depend on selling goods cheap to get business, and therefore their advertisements lean towards the department store and "Cheap John" style, while others stand on their dignity as professional men, and, like the doctor, lawyer, or minister, depend upon their reputation for business, and from them we hardly ever see more than a simple announcement to let people know that they are still alive and sometimes kicking. Under certain circumstances these two extreme styles of advertising are perfectly right and proper, but for the average drug man, as we find him at this day and

generation, the happy medium between these two extremes is the proper one to pursue. The druggist should so advertise as to give the public to understand that he is not merely a tradesman, buying and selling as cheaply as possible, but a professional man as well; that the handling and vending of medicines and medical appliances, the preparation and compounding of drugs and medicines requires a special education and training, and special care and skill, and I think that no druggist's ad., whatever it may be, is complete without this idea being presented. It may be made prominent or merely suggested; a sentence or even a word is sometimes sufficient. The druggist must try and give the public to understand that they are not likely to be either robbed or murdered, or both. So far as to the principle to be kept in view in constructing a retail drug ad., as to the modes of advertising, they may be classed as two—the indirect and the direct. By the indirect I mean the location and condition of the store, the quality and arrangement of the goods, the personality of the druggist himself, and of his employees; his social and business relations, and other matters which have an indirect bearing on his business, which, although they involve some very important considerations, it is not my purpose to discuss. By the direct method I mean what is usually understood when speaking of advertising which may be classed as regular, as in newspapers and periodicals, irregular or occasional, as by circulars, booklets, in hotel registers, etc., programs and such like, or by displays, cards, and in the store and store window, and sometimes other places. All these means should be employed by the druggist to attract the attention of the public; but the extent to which each of them may be employed will vary according to circumstances, and must be left to the judgment of the individual druggist himself. With regard to newspaper advertising, druggists as a class do not give the attention to it which they should, and instead of looking upon it as a disagreeable duty of more advantage to the paper than themselves, they should take an interest and a pride in it, give it their study and attention, and make it a benefit to themselves and the public, and an honor to the class. To write an ad and so construct it that it will catch the eye, hold this attention, and be productive of good results, requires work and study, and also considerable practice, more or less according to the natural ability of the writer, but almost anyone can make a fairly good ad if they will only try and keep trying. Nearly the same may be said of circulars, booklets, etc., which are useful and should be wrapped up with parcels which leave the store. I have adopted a plan which keeps me supplied with circulars with very little trouble and expense, with some of my newspaper ads; before the printer distributes them I have him strike off a few hundred on sheets, which I can use at the counter. With regard to the ads in programs, when they have a special construction and application, and if appropriate to the occasion so much the better, they are productive of good results. Of course, we are always expected to help along local enterprises by having an ad in the program, and are often indirectly benefited by gaining or retaining the good will of the ladies; but, as I said before, all this takes time and study, but if you have not got the time or doubt your ability, ad writing is

now a business and you can purchase the services of those who devote their whole time and attention to it. As to the third method, by display of goods, I will say of window dressing, that it will repay what time, study and labor may be given it. So important is it considered that we have professional window dressers, and books and periodicals especially devoted to the subject, and it has been said and said truly, that the store window is an index to the store itself. Make it an attraction.

But I will here mention a method of advertising which I consider one of the best, if not the best. It involves no outlay of money, is direct and can be brought to bear where it is likely to do the most good. I might designate it as "personal or conversational" Instead of the druggist spending his time, as is often done, discussing war, politics or social functions in the store with his customers, he can make it just as interesting and much more profitable to himself if he calls their attention to his goods, their especial merits, prices, quality etc. Everyone with a little tact can interest his customers in this way. He may not make an immediate sale, but it is almost certain if the party should want anything in your line in the future, they will think of you. But when we just think of it what a vast field there is open to us in the directions above indicated, and instead for sitting down and bemoaning our fate, cut prices, dispensing doctors, revenue taxes, etc., by a judicious system of advertising we must let people know that we are still doing business at the same old stand. So far what I have said in a general way is not new and may be familiar to you all, but it is something which will bear repeating, but I shall close this paper with a few remarks of a personal and practical nature. When I first began to pursue a systematic course of advertising, I became convinced that in the construction of my ads nothing would give time so distinctive a character and help to attract attention so much as a good cut. I used some which I purchased, but soon found if employed as they should be that it would be rather expensive, so far as the average druggist was concerned, although they are now supplied by most of the drug journals and publishing houses at very reasonable figures, but my attention was called to the making of cuts by what is called the chalk plate process, by an article in the *Pharmaceutical Era* of June, 1893, by A. J. Embree, of Belton, Texas. I made some experiments and interested a young man in our local printing office, who developed a wonderful talent for the work, and made me some very acceptable cuts, and I am sure had the young man lived he would have made an expert at that kind of work. The process consists in coating a smooth steel plate with a composition of plaster of Paris and cutting out the picture or design with a stylet; a cast is taken with type metal, with which the print is made. If one has a little talent for drawing, with a little practice they can make very fair cuts. Before the young man I spoke of died, we had experimented on a plan to use a composition of rubber instead of type metal, with which we did some very good work. The process is simple and easy, and with the proper material any intelligent boy after a little practice can do very good work. All that is required is first a plate of polished steel (or anything else which has a smooth surface) somewhat larger

than the cuts which you desire to make and will stand pressure. This is coated with a composition made with plaster of Paris about a sixteenth of an inch thick. If you are not good at drawing, on this you can with a piece of carbon paper sketch any cut or design which you may select. In the usual manner this is then etched out with some sharp pointed instrument. Next you have rubber gum and a block of wood less than type high. The gum is softened in hot water, rolled into a sheet and placed over the etching, and the block of wood large enough to cover it placed on top then it is subjected to pressure. I use a copying press, and when cold can be removed from the plate, and you have the cut or design in relief on the rubber, from which prints can be made. Although the process is simple, it requires care and attention, and when I have experimented somewhat further I hope on some future occasion, should my brother druggists desire it, to describe the process somewhat more in detail.

I had intended before closing this paper to outline and advocate a plan for the exchange of advertising among druggists, saving expense and labor, but I have extended this paper much beyond its intended limits, and must close, hoping that what I have said may have interested you to your benefit.

Paper by Mr. Schrouder, of Grand Rapids, on "Advertising the Retail Druggist," read by the Secretary in Mr. Schrouder's absence:

#### ADVERTISING A RETAIL DRUG STORE.

BY B. SCHROUDER, GRAND RAPIDS, MICH.

In Michigan we have 1,563 retail drug stores—we have 3,115 registered pharmacists and 323 assistant registered pharmacists. Deducting from this the number of registered pharmacists who are employed in the various laboratories and wholesale drug stores in our State, and from the remainder trying to strike an average, I would presume to say that the number of registered pharmacists to each drug store would be less than 1 6-10 per cent. From these notes I believe that most proprietors are the men who "run the store" themselves and naturally attend to the advertising of their respective stores. The only reason any pharmacist advertises his store in any way is to increase his trade, not to increase the business of his competitors nor to increase his own trade and clerk hire without making enough money out of the system to cover the additional expense. Advertising is always an expense. The word "advertising" can be fitted to your method of doing business just as well as, and in some cases more properly than, by spending money on dodgers, sending almanacs, samples of pills and headache powders from house to house.

The old sign you sometimes see in stores where they don't spend a cent advertising any other way which reads "A PLEASED CUSTOMER IS OUR BEST ADVERTISER." means very much, but, often enough, the man who runs the store wherein this sign hangs don't half realize this important fact.



He is the same person sometimes who loses the sale and often-times the customer by neglecting to offer to get the desired article (which he happens to be out of) and promptly sending it to the customer's house, or if the prospective customer should happen to remark (unconsciously, of course), "You are dearer here than they are at Jones' drug store," he will at once proceed to get huffy and say, "Well, you had better go to Jones' and get it."

That, I think, is bad business. He loses his sale and hurts his customer's feelings, and usually finds that the would-be buyer takes his advice at what it is worth and purchases the desired article at Jones'. Later, though at heart repenting his hasty words, the disappointed salesman endeavors to reconcile himself by repeating the history of the incident to his fellow friends or competitors, who smile with him, but don't say much.

Then, if we take a look at the fronts which the leading stores of our largest cities put up you will notice that they are very inviting—windows are clean, well lighted, signs are plain and there are not too many of them; the vestibules of the front doors are dustless; I have known druggists to have their sidewalks and woodwork in the entrance to their stores swept and dusted morning, noon and night. The druggist in the small town or the neighborhood druggist in a city does not need to have a large stock or be too poor to have the index (front) look inviting. Sticky fly paper half full of dead flies is no good as an advertisement; neither does a tin plate filled with poison fly paper look inviting. I have found that I had just as much trouble with flies in my windows with the fly paper in them as I do now without. One thing is certain, it will take a long while to kill off all the flies—perhaps they will never all die—so is it not just as well to keep the window floors covered with dark cloth and dress them with such goods that are not affected by fly spots, or doesn't it pay to change the trim often enough and make more delicate displays?

A dollar a week judiciously spent in window dressing is not extravagance for even the smallest drug store, if the proprietor does really care to keep his store front tidy and inviting. New and valuable trade is lurking in every locality. There is transient trade in every town or neighborhood. Don't let yourself think that it is only on the main streets in the large places where transient business is found. My store is a neighborhood store. I sell drugs, soda, cigars, stationery and school supplies. I would also handle bicycles and hay rakes and still insist that my store was a drug store and advertise it as such if I had the room and necessary capital. I have been in the business for myself but a few years and have not by any means an ideal drug store, nor even an ideal store, but as it is now I often shake hands with myself when I visit the store of a grunter.

When I visit a strange store I can tell before I talk with the proprietor that he is a grunter (if he is one); his clerks are not quick in getting to the front; he himself is apt to remain in the rear of the store at his desk—his cigar case has empty boxes in it—I never allow my customers to see the bottom of a cigar box in my show case; when down to the last layer is taken out I

replace by a full box.) The shelf bottles in the store of a grunter are like his store front—dusty, his soda fountain isn't half dressed—this kind of druggist is not uncommon, they do not observe enough of the world of business to keep them out of the rut, they don't attend a druggists' convention often enough, they don't visit other more prosperous stores often enough. Any retail druggist who will take the time for just a couple of weeks' vacation every year, recreate himself, meet other druggists from his town and other towns, and take in a ball game occasionally, will find he is much better pleased with himself and the condition of his trade—he will be able to return to his store and see it as other people see it, and then he will make up his mind he is going to do business.

My most successful method of advertising has been through the newspapers, not very large ads, but in first-class positions. I don't write ads about my store that I don't believe, and usually my ads are so simple—yet pertinent—that people who read them know what I am talking about, and if the goods advertised interest them, they investigate further by coming into the store. I do not believe in writing advertisements showing an attempt to be funny, or to quote poetry. The ad should be made to "stick out;" this can be done usually by the proper use of borders and bold headlines. I don't believe it is always wise to push only the goods on which you make the most money. It is best to be firmly convinced that your substitute is really as good as—or better than—the article the customer asks for—if you are not positive about it, do not mention it, sell the goods with a narrow profit and the customer will not be liable to give you the "go by" next time.

Although for advertising mediums—church concert programs and pamphlets issued by local societies are practically worthless, I often allow myself to be "held up" just for the sake of putting in evidence of good will and sociability. If the enterprise is conducted by fakirs who make a business of it, I promptly tell them that their scheme doesn't interest me and turn them down. Every man in business has to use his own judgment in selecting places where it is worth while to be a "good fellow," but there is no need of any pharmacist being an "easy mark."

House to house distribution of attractive advertising matter is splendid advertising, even though many merchants in the same city do it. Advertising of this kind is invariably given some attention by members of the household, but don't hire boys to attend to it, pay a fair price and have it done well—don't allow your pamphlet or sample to be laid on the doorstep, the bell rung and then leave it; if you must ring the bell wait there until some one comes and hand that someone the advertising matter, then your advertising is given what you expected—attention—and if it is well printed and written in an instructive manner, it will make the desired impression.

Cigars in the show case should be properly marked, every box should have its price card on it, for even the most popular and staple brands are not known by some smokers. My cards are all white ones, about the size of a visiting card and plainly printed with a pen—it's the black and white system—and pays.

The candy case is fixed the same way—and no goods go into my show window without the price plainly exposed—it shows no fear of competition, even if the price of competitors happens to range a little lower.

President—"I see that it is about time to adjourn and the matter of election of officers is before us. What will we do with it?"

Mr. Mann—"I would suggest that the entire nomination of officers be put in the hands of a committee of five, who are to report at our afternoon session?"

Moved and supported that the above suggestion be carried out.

Carried.

Mr. Parker—"I would be in favor of convening as early as possible after dinner and getting through with our business as early as possible, and thus not rush our business at the end."

Mr. Gundrum—"Would it not be best to appoint the committee before adjourning?"

Mr. Stevens—"Would it not be well to wait half an hour and discuss these papers?"

President—"I think that would be a good idea."

President—"We will proceed to the discussion of the papers."

Mr. Calkins—"Regarding this matter that has been mentioned by these papers, I would say that I have been in many of the large towns and cities and nearly all other lines are well advertised by their windows but the druggist seemed to be lacking in this respect. I have tried to make a little impression by window displays. When I put goods in the window I mark them with nice clean white cards, and it generally brings good results and pays for the rent of the window."

Mr. Pauly—"Whatever we display in the window we advertise in the local paper. We make our windows attractive and then call attention to them."

Mr. Ward—"Speaking of window displays I will say that I have tried it to some extent and whether it has paid or not I do not know. Last 4th of July I procured a fac-simile copy of the Declaration of Independence and used it in my window and besides that I put in the window some bottles of my blackberry cordial. Now, I don't know whether anybody saw the blackberry cordial or not, but I know that hundreds saw the Declaration of Independence, and they discussed it somewhat. It was printed, I think by the Victoria Printing Company, of Chicago, and cost me \$2.75, and is available at other times besides that.

So far as attention is concerned, it attracted a great deal. I used another window display in connection with the explosion of the Maine. I procured one of the pictures of the Maine that is printed on both sides. The Maine was on one side and a backing to it when the light showed through it, it would show the explosion and how it took place. I had an arrangement that I use now and again. It is a water motor that I got from one of the jewelers. It is very simple and is not costly. The principle of it is this: Inside there is a kind of clockwork which carries the light and revolves it around on a little stand. The light would turn and show the explosion and then the Maine as it was before the explosion, and it attracted a good deal of attention."

Mr. Parker—"I think the druggists ought to do some professional advertising. I have derived a great deal of benefit from chemical advertising. A copper still, etc., placed in the window, which to the average man appears mysterious, is, I think, very attractive, particularly with a condenser in running order. There are many very simple displays that can well be worked up with no expense. For instance, take a piece of coal and place it in the window with some of its numerous synthetical products, and it will be very attractive. It always pains me when I see a window full of patent medicines and on them placards announcing their sale at any price. It is simply taking up valuable space for the benefit of the proprietor of such medicines and losing it to yourself."

Prof. Prescott—"It often occurs to me that druggists allow the proprietors of patent medicines too much liberty in local advertising over the druggists' names. I find these advertisements in local papers over the names of druggists when I know the druggists themselves would not have written such advertisements. They were written by the patent medicine men and the druggists had allowed them to make extravagant claims, etc."

Mr. Parker—"I will relate an experience that I think Mr. Perry and I had with Pink Pills. We never recommended and never tried to encourage their sale. A man came to our stores and asked what we thought of Pink Pills, and we told him that we did not think they were very safe pills, or at least understood so. We were very much surprised, shortly after, to read a very laudatory advertisement in the paper setting forth that we deemed them a reliable pill and recommended them. I immediately went to the newspaper office and demanded that it take the man's claims out of their paper, and which they stated they

were very glad to do. I think if I had it to do over again I should be inclined to place that matter in the hands of an attorney."

Mr. Stringer—"I saw an advertisement on Michigan avenue the other day that attracted my attention, and that was a silk flag about three feet long. On one side of the window was an electric fan and it made the flag fly in good shape and attracted attention by the movement of it."

Mr. Ward—"I made a display once with sarsaparilla. I got a brass kettle, hung it up in the usual form with a tripod and arranged around it the different materials from which the sarsaparilla was made. I had some of these little brownies in different positions around it and indicating that that was the way sarsaparilla was made. I had bottles of it standing around and it attracted quite a little attention, and to my mind it was a pretty good ad. It is not much trouble to get up a window display and at little cost too, which will be attractive and will pay in the end as well."

Mr. Brown—"The matter of window displays is one that every druggist, I fancy, cannot work to good advantage. Some men have a natural genius and can make a display that will attract attention for little cost. I had a clerk once that could take anything in the store and make a good display. At one time we were overstocked on a lot of cough drops that I got sold on, and I expected that I would have to throw them away. He said to me, 'Why don't you sell those things?' and I said, 'You sell them if you can.' He said, 'I will put them in the window next week.' He brought them down from the shelf, took them out of the boxes, and dumped them into a common wooden wheelbarrow, and then he wheeled it up on a plank in the window and dumped it and put in all the rest of the empty boxes, and it looked as though we had 50 gross instead of five, and in two weeks we had sold every box. We started out to sell them two boxes for five cents, but we received the full price at the last. I wouldn't have thought of it in a thousand years."

Mr. Calkins—"I have used a display that can be used at times and that is rolls of toilet paper. You can build them into all kinds of fancy designs and drape them from the chandelier, and it will sell that way if at all."

Mr. Gundrum—"I move we adjourn until 2 o'clock."

Carried.

President—"I will appoint on the committee to nominate

officers for this Association Messrs. Parker, Prall, Mann, Gundry and Church, and they are to report at this next session."

Mr. Knill—"Will you be ready at 4 o'clock for this trolley ride?"

President—"I don't think this Association will allow any of its business to interfere with this trolley ride." (Applause.)

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#### FOURTH SESSION.

Meeting called to order at 2 o'clock by the President.

President—"The first thing on the program is the report of the delegates. Mr. Sourwine, have you a report?"

Mr. Sourwine—"Yes, I will read it.

#### REPORT OF DELEGATES TO N. W. D. A. AND P. A.

Mr. President and Gentlemen: Just how long the practice of sending a delegate to the National Association of Manufacturers and Wholesalers by the State organization of retail druggists has been in vogue, I am not sufficiently informed in the folk-lore of the latter to give authentic or instructive data; neither am I sufficiently versed in its traditions to characterize its real intent in delegating one of its members to that duty. If the achievements to be attained are merely of a social nature, and he is supposed to carry an exchange of friendly greetings from one body to the other, it is certainly commendable at least from the lofty standpoint of sentiment, but as the matter stands to-day, the practice with this object in view is a misnomer, and does not reflect the true axiom of present conditions. There is not now, nor has there been for some time, that frank sympathy of the retailer for those whom he is supposed to meet upon amicable terms, and for various and cogent reasons. He is forced by a misuse of the public press to sell articles in the virtue of which he has but little faith. He has seen difficulties gather until the true pharmacist has been forced to vacate the laboratory for the field of barter, where his training is at a disadvantage with the methods that everywhere prevail, aside from receiving little or no profit in the goods he is forced to handle. He is criticized for recommending his own preparations, in the construction of which

certain well-defined and scientific lines have been followed, and whose value as a useful commodity does not require the halo of mystery about it to insure its efficacy; and to-day he is asked to swell his patriotic heart, and pay all the national revenue, while the relief committee goes swimming on the idea that the war tax will hang the "cutter" and restore prices.

The average 1898 druggist may be an enthusiast for the stability of the national treasury, and make every sacrifice to prove his sincerity, but he is not fool enough to ask one dollar, two and one-half cents for an article with the retail price of one dollar stamped all over it.

However, the compliment extended by the Honorable President of this Association was highly appreciated, and the attending responsibility assumed with an earnest desire for the mutual benefit of those represented. I believed then, as now, that an earnest plea for the proper adjustment of certain demoralized conditions would ultimately result in at least a closer compact, through which many of the vexed questions confronting us could be eliminated. With this belief firmly impressed upon my mind, I was particularly anxious to attend a session of the N. W. D. A., and lay before that body my plan for the prevention of price-cutting in the retail drug trade. I fully realized the difficulties surrounding the undertaking, having no vote or voice in that organization other than by special permission, and also realizing that many of its members were antagonistic, or at least indifferent to anything that would add expense or complications to their established modes of business. I resolved, if possible, to place the responsibility where it belonged. I left the Upper Peninsula on the 7th of October, and with all the evidence at my command in support of my plan, and loaded generally with a great many of the grievances peculiar to the drug trade. Upon my arrival in Chicago, next day, I was much surprised to learn that only one of the wholesale druggists upon whom I called, belonged to or took any interest in the deliberations of the N. W. D. A., and upon apprising them of my mission as a delegate from Michigan to that body, was scrutinized interestedly, and pleasantly informed that I would no doubt have a pleasant time without accomplishing very much. This assurance may have been from lack of interest in retail prices, or an attempt to minimize the prospective influence of the N. W. D. A., but all disclaimed any act or intention to sell department stores, or other cutters. I regretted very much at not being able to secure the friendly assistance of those with whom I had been dealing for years, but this did not dampen my ardor in trying to get either an affirmative or negative expression from those in authority.

Enroute from Chicago to Richmond, I had the pleasure of meeting Mr. A. B. Merriam, of St. Paul, the Secretary of the Association, with whom I had some conversation relative to the subject, and who assured me that this question would receive all the attention its importance demanded, and I desire on this occasion to make public acknowledgement of his kindness and cordial support; also that of Mr. James E. Davis, of Detroit, and Mr. J. R. Kathrens, of Milwaukee. The first session of the N. W. D. A. was held at the Hotel Jefferson, Richmond, Va., Mon-

## *Proceedings of the Sixteenth Annual Meeting*

day, October 11th, 1897, at 8:30 p. m., with delegates from Pennsylvania, Illinois, Michigan, and the American Pharmaceutical Association in attendance. In my response to their words of welcome, I said, in part: "It affords me great pleasure to receive your cordial greeting, and on behalf of the Michigan Pharmaceutical Association, and my associate, Mr. Anderson, I desire to return thanks. I also desire to emphasize the remarks of the gentleman from Illinois, inasmuch as he says 'what benefits the retailer, must also benefit the wholesaler,' and the great problem to-day in Michigan with the trade of which I am a part, is the cut-rate problem. We have put our whole souls in this matter, and have decided that something must be done. We have also corresponded with the Pharmaceutical Associations of other States, and find that they are in hearty accord with us. I believe that a great part of the hard times we have experienced in the last few years are directly traceable to the cut-rate business. Nothing has had such a depression on the trade of the honest retail druggist; it is his business, his life, and for that reason, we have taken special notice of it, and we come before this Association to try and see if we cannot get some word of encouragement, something more tangible than resolutions of sympathy. At some future time, I expect to hear and take part in some discussions that will result in definite action regarding this question."

Now, while disclaiming any intention at personal aggrandizement, I believed the real interest in the price-cutting problem could be best developed by presenting my plan, which was done through the Proprietary Committee, and later, on the floor of the Convention. While this subject was under discussion, Mr. M. M. Kline, Chairman of the Proprietary Committee, and who has made this subject a study for fifteen years, said: "In the presenting of this, it gives me an opportunity to say something which I wanted to say at some time during the progress of the meetings, with reference to the difference between this work, as it has been started and carried on in England, and the work as it has been heretofore conducted by our friends in the retail trade in this country. The trouble here, to my mind, has been that our friends, the retailers, have not recognized, and do not think even to-day, recognize the fact that however much the manufacturer may wish to regulate his prices, he is unable to do so, unless he has the co-operation of the United Retailers. They recognized certain things that showed me however far advanced we may be in other things, our English friends are far in advance of us in this particular matter. For example, they recognized the fact that from the retailers must come some demand that they be protected. Now, the plan which has just been read in your hearing, and was presented to me before I came to this meeting. I am glad to say, recognizes to some extent some of these principles which our English friends recognized at the start. I only want to say again what I said yesterday in the Proprietors' meeting, that it is not true now, and never has been true that the manufacturers are unwilling to recognize the claims of the distributors in the retail trade."

I also quote from President Purcell's remarks, who said in part: "Gentlemen, if you will pardon me for making a few re-



marks from the Chair, I want to say that I had a conversation with Mr. Sourwine and Mr. Anderson on this subject, and I felt warranted in saying to them that it was the desire of the Association, not only to co-operate whenever opportunity was offered in the consummation of a plan that would prevent this evil, but that this Association stood ready to lend its assistance even by the trial of a doubtful plan, if necessary, if they could be backed up by a sufficient number of retailers behind them."

Now, while it may seem that the N. W. D. A., as a body, has heretofore been indifferent to the conditions concerning retail prices, their present attitude refutes all such aspersions, but I am sure they feel that there is such a woeful lack of organization among those who complain that their efforts would be futile single-handed. However, the plan was by a unanimous vote taken up and referred to the proper committee, with instructions to report upon it at the next meeting, to be held in St. Louis, in October, 1898, and I feel justified in saying that this subject has not since the evil began, received the attention it is receiving to-day. Not alone are druggists waging aggressive warfare against the "cutter," but nearly every other branch of trade which has suffered from it, as well as labor organizations, legislative bodies and civic societies.

My recommendations are:

First: Form a National Organization of the State Delegates, accredited to the N. W. D. A., and instruct them to formulate demands in harmony with our requirements, and place them, with our united support, before that body.

Instruct our delegates to begin corresponding immediately after their appointment with the delegates of each State organization, with a view to holding a joint meeting prior to or during the sessions of the N. W. D. A.

In conclusion, gentlemen, I have refrained from much comment, preferring to leave that to the deliberations of this body, but I do desire to emphasize the fact that while trying to discharge the duties of delegate from this organization, I have made no plea, promise or request beneath the dignity of an organization reserving for itself the right of independent action when true business interests are involved.

JNO. J. SOURWINE.

Mr. Parker—"I would suggest that Mr. Anderson, the associate delegate of Mr. Sourwine, make a few remarks."

Mr. Anderson—"I have made a little auxiliary report, but as Mr. Sourwine has practically covered the ground, there is nothing new to report."

Report read.

Mr. President, Members of the Association:—In presenting this report to the Association I shall endeavor to show how any

change in the present condition of affairs—affecting the cut rate problem and coming through the N. W. D. A. and Proprietors' Association—must necessarily be a mutual effort. It is assumed by many that it might be a comparatively easy thing to have the Association of Wholesale Dealers and Proprietors adopt any scheme of this description, and I believe they would willingly adopt any measure that would benefit this condition, but it must necessarily be something of which you can convince them that there is a possibility of its success, and second, that the retailers are earnestly endeavoring to support any plan that may be adopted by them.

When you consider that originally the cutting of prices commenced with the retail dealer and has been carried on in exceptional cases by him, it naturally follows that the wholesalers and manufacturers do not feel that they have been the cause of the evil and the remedy should come practically from those who have created this condition. The leading cutters are in the minority, it is true, and it lies within the united efforts of all other retail dealers who are not cutters from choice, but who use the greatest amount of these goods, to put their trade in the balance against the trade of the leading cutters. Without the united effort you might as well not try to do anything, but it seems that at this time there is a better opportunity than there has been heretofore to carry into effect some idea of this description.

The question now is, how far will each dealer take a personal interest in carrying out any plan that may be adopted? If you really have this matter at heart and intend to do it, you must make up your mind that there is no one going to do it for you, but each individual must make it his personal business to supplement the work of those who start such a departure. It will not do to sit back and criticize and think you can be able to form a better plan, or that some one connected therewith is not performing his part of the work exactly as you would wish it, but you must lend your energetic efforts to carry out a plan—even if it be an imperfect one in your mind—and then something will be accomplished.

To show you what difficulties surround any action of this nature, your delegates to the last convention of the N. W. D. A. arrived at Richmond promptly on time. During the first session—devoted to receiving delegates—we were happily welcomed and given the assurance at the proper time we would be heard. Right here it may be interesting to explain the method of doing business, which is, the different committees on the different work in the National Wholesale Association bring in their reports. These are read, referred to a Board of Control and then returned to the President with recommendations, when the Association discusses and takes action thereon.

The section in which our business was to appear was classed with "Proprietary Articles." We expected we would have a chance to bring our plan before the meeting when this committee reported, but when it did report the recommendations were passed and our opportunity passed also. This took place in the afternoon of the third day. We had been in constant attendance on the meeting during every session, so thought that our chance was gone. As a forlorn hope we then proceeded to make an ex-

traordinary effort, assisted by the kindness of Mr. Jas. E. Davis. After unusual exertion, amounting almost to a demand, we were assured of a hearing the next morning, which was kindly granted us. Mr. Sourwine presented his plan in detail and the speakers who followed were Messrs. Kline, Kelly, Pierce and others—all prominent men in the N. W. D. A. I closed the argument on our side and it did seem that we had made some impression thereon. Mr. Faxon, now chairman of the proprietary committee, assured me personally on leaving the floor that he would give us all the assistance in his power, and I have to report that the Sourwine plan has been placed in his hands and he has acknowledged the receipt of the same, saying it had been laid before the attorneys of the Association to see if it conflicts in any way with the law in different States regarding combinations. This opinion has not been forwarded to us yet, but we may expect it (or some information concerning the same) at the next meeting in October of the Wholesale Drug Association. It now remains for this Association, having taken up this line of work, to say whether it will be pursued or not at the next meeting of the N. W. D. A., and if so, you must send delegates familiar with the work, to forward this matter energetically to a finish. In my own opinion, if this is pursued, there is an opportunity of formulating a plan based on Mr. Sourwine's idea, that if carried out as intended will be in a great measure successful. To let it drop now would be simply throwing away the work that has been done; besides this, it would put in evidence before the wholesale dealers the fact that we had started out on the course to reform but did not have backbone enough to pursue it. It seems to me that this is really worth both your time and money. Even if it does cost a dollar or two—you will have made a good effort. There is a great deal of difference between putting your hands in your pockets to pay two or three dollars individually for expenses, and then considering the time and money it costs your representatives to go before such a meeting to advance your wants in a business like and persistent manner. It is no boys' play to do this work—it requires diplomacy, experience and attention. Mr. Sourwine and myself did not leave the hotel in Richmond for three and one-half days, but persistently watched an opportunity, which up to the last day was not afforded us until the last business session, when we were given a chance to have our say, and which we almost failed to secure.

I trust that this Association, which is taking a position in the lead of this question, will make such provisions and send such delegates to the N. W. D. A. this year that will move this work still another point further. You must not feel that there is unnecessary delay in this method of doing business, because the affairs of the Association themselves pass on from one session to another very frequently, and they no doubt will hasten this matter as fast as they would business affairs of their own. Besides this, you must remember that into three or four days session they crowd a great deal of their own business which is absolutely necessary, and if any opportunity is given for the presentation of any outside matter, it is considered a great compliment to the one who presented it.

I am glad to say that all those who heard this plan discussed

seemed to be thoroughly interested. There was a demand for reprints of Mr. Sourwine's article (laid before your Association last year), and no doubt it has been read and digested by those who were most interested, viz., the proprietors.

This auxiliary report is submitted to show in what condition the matter rests and as a report of work performed in the interests of those who subscribed to the expense of sending out the delegates last year.

C. N. ANDERSON.

Detroit, Michigan, July 29, 1898.

President—"Any remarks upon this report, gentlemen?"

President—"The question as to the advisability of appointing delegates for the next meeting of the N. W. D. A. would come up at this time."

Mr. Westervelt—"I move that Mr. Sourwine and Mr. Anderson be re-appointed, and we put our hands in our pockets to pay their expenses the same as last year."

Mr. Sourwine—"I thank you for the compliment in offering to send Mr. Anderson and myself again to the National Wholesale Druggists' Association; but, inasmuch as he paid about one-half and I paid at least two-thirds of my expenses to Richmond, I want to say in advance, and before this motion is placed before the convention, that while I am just as fully interested in this work and the prosecution of this plan as I ever was before, it is no more to me than it is to you, and that I do not feel that I would care to go to St. Louis and pay my expenses the same as last year. I could not accept it under those conditions. I would prefer to give it to any other gentleman, but I don't want to be elected a delegate to that Association and have to pay what would be my legitimate expenses."

Mr. Anderson—"I want to say something in support of Mr. Sourwine's position. There was subscribed \$100.00, which was divided between us, and at \$50 apiece it didn't cover our individual expenses. This Association gets the time of Mr. Sourwine and myself and the labor, and I think it is no more than right that the money expenses should be thoroughly taken care of. Mr. Sourwine says he gets the benefit of it, but he does not get the benefit any more than anyone else, and it takes a week's time, and that is something to both of us. He knows the ropes and we are in a position, perhaps, to do you good service, but I do think that the money part of it should be taken care of by this Association."

President—"Could you give us an idea of the expense?"

Mr. Anderson—"I think to go to St. Louis it would not cost as much as it did to go to Richmond."

Mr. Sourwine—"I think from my place to Chicago the fare is \$20, and from Chicago to St. Louis the fare is \$7 each way. As to the hotel expenses, I am perfectly willing to do anything in my small way to benefit my fellow druggists and to carry out any part of the work that is necessary to do, but I don't feel that it is right that I should pay my expenses, and I don't ask this Association to pay my expenses. I will help pay towards anybody else's expenses, as I don't think it is right to ask a man to go and not pay his expenses."

Mr. Mann—"There are hardly enough pharmacists at this meeting to bear the expenses of these two delegates, and I don't see how we can send them unless we get help from the State at large. Unless we can devise some means of raising this money at large I don't see how we will be able to send the delegates."

Mr. Eberbach—"The conditions have changed considerably within the last twelve months and I don't see that they warrant the expense of sending delegates. I think that the patent medicine question has gotten into an entirely different condition and will probably solve itself, but of course I feel like Mr. Anderson that we ought not to leave any work unfinished. I cannot see how we are going to be benefited by it when the point is carried."

Mr. Parker—"This is a Michigan plan, and the delegates report that it has been well received by the Association. I am led to believe, from their report, that they have been shown favors not ordinarily shown to delegates, and it is fairly squared away by being brought before the Association officially. It is in the hands of the Secretary, who will make a report on it. He said that he was interested in it and he wished to go into the matter fully. Now, it does not seem to me that we as an Association should lay down at this time, and if we should send these two men to this meeting of the Wholesale Druggists' Association and it will either make or break this time and it will be the end of it, and I think the Association ought to guarantee their expenses. I am willing, for one, to contribute to their expenses, and it would certainly be a black eye if we should lay down at this time and quit. We should send the same men that went a year ago."

Mr. Church—"I had some experience in collecting money around the State. You would be surprised at the number of people that refused to give a dollar for this cause. If the Secretary

could send out a slip. I think that would be better, but by going around and begging they will not give it up.

Mr. Mann—"The only feasible way of getting at this question is to frame this in as good language and as explanatory as we can and send it to every retail druggist in the State, and in that way, perhaps, we could raise enough money to send the delegates."

President—"I would suggest that we raise all we can among the members that are present at this meeting and then let the Secretary raise the balance out of the members that are not here. It would be much easier to raise the money from the persons here than canvass the State and get it out of the druggists that do not really understand the situation."

Mr. Prescott—"I move that a committee be appointed to collect what money they can to-day and to-morrow."

President—"There is a motion before the house, to send Mr. Sourwine and Mr. Anderson to the next meeting of the National Wholesale Druggists' Association."

President—"We will put this motion as it first stood."  
Carried.

Mr. Westervelt—"I make a motion that a committee be appointed to collect what money it can and that the Secretary send out the slips asking the druggists, and also that this Association guarantee the expenses."

Carried.

Mr. Eberbach—"I don't see how we can saddle this expense on the Association under the present financial conditions, and move that we reconsider the question."

Mr. Anderson—"You cannot reconsider that motion at this meeting."

President—"The point is well taken and we will take it up at the next session."

President—"The next thing will be the report of the Special Committee on the Pharmacy Law, and if the committee is ready to report we would be pleased to hear from them."

President—"I will now appoint the special committee to raise funds to send the delegates to the N. W. D. A."

Committee—Messrs. Westervelt, Church and Parker.

Mr. Mann—"I would like to suggest that that committee keep track of every man that makes contribution, so we will not be dunning the same man over again."

President—"The next thing in order is the report of the Special Committee on Revision of Pharmacy Law. We will now listen to the Chairman, Mr. Perry."

Mr. Perry—"This committee would recommend that a special committee be appointed to go through this National Pharmacy Law and make a report to the A. P. Association by August 10th."

Mr. Mann—"I move the report be accepted and the committee appointed."

Carried.

President—"I will appoint the committee later."

#### REPORT OF SPECIAL COMMITTEE ON REVISION OF PHARMACY LAW.

Mr. President and Gentlemen of the Association:—We desire to submit the following report: Your committee met in Detroit February, 1898. Your President, Secretary and Mr. Jas. Vernor by special invitation were present.

We took up the present law, section by section, and where it was weak made amendments. When we finished we had a skeleton bill which has since been placed in legal form by the attorney who has been doing the legal work for the Board of Pharmacy, and was well fitted to see that it was in proper shape.

We hope that the Association will look into the proposed changes very carefully, as it is of the utmost importance that we should have it in proper form before being presented to the Legislature. We hope that the outcome of the proposed legislation will relieve us in the future of being classed with saloonkeepers, and of having to come to Lansing annually to defend ourselves.

Respectfully submitted,

F. W. R. PERRY.

OTTMAR EBERBACH.

E. F. PHILLIPS.

(At this point the report of the Committee on Revision of Pharmacy Law was taken up and discussed, but as the matter was finally referred back to the same committee for further action, the discussion has not been printed. Secretary.)

Prof. Stevens—"I move that we proceed to the election of officers."

Carried.

President—"We will have the committee report on the nomination of officers."

Mr. Parker—"Your committee met and did their work and the matter of presenting the names to the Association has been referred to the Secretary."

President—"We will listen to the Secretary."

Secretary—"The officers nominated are as follows:

President—J. J. Sourwine, of Escanaba.

Vice-Presidents—H. C. Knill, of Port Huron; M. Reidy, of Cerunna; E. E. Calkins, of Ann Arbor.

Secretary—C. F. Mann, of Detroit.

Treasurer—J. S. Bennett, of Lansing.

Executive Committee—Ed. J. Rodgers, of Port Huron; E. T. Phillips, of Armada; D. E. Prall, of Saginaw; Alfred L. Walker, of Detroit; O. Eberbach, of Ann Arbor.

Trades Interests Committee—John Peck, of Grand Rapids; A. H. Webber, of Cadillac.

Delegates to American Pharmaceutical Association—Dr. A. B. Lyons, Detroit; Prof. A. B. Stevens, of Ann Arbor; Prof. A. B. Prescott, of Ann Arbor; J. W. T. Knox, of Detroit.

Prof. Stevens—"I move that the Secretary be instructed to cast the unanimous vote of the Association for the officers nominated by the committee."

Carried.

Mr. Mann—"I move that the President be authorized to appoint the balance of the delegates."

Carried.

Mr. Mann—"Here is a telegram from the druggists and city officials of Jackson that might be of interest."

"To E. E. Russell and C. C. Jenks:

Our mayor, city officials and all druggists ask your Association to select Jackson for its next year's meeting and extend a most hearty welcome.

(Signed.)

W. W. TODD."

"The only other invitation we have is from Detroit."

Mr. Mann—"I move that Jackson be designated as our next place of meeting and that the meeting be called for the three days beginning with the first Tuesday after the second Monday in August, 1899."

Carried.

Mr. Mann—"I also move that W. W. Todd, of Jackson, be elected as Local Secretary of that meeting."

Carried.

President—"We are within three minutes of the time for the trip on the trolley car."



Mr. Stevens—"Three minutes will be just about time to give a vote of thanks to the druggists of Port Huron for all they have done for our entertainment, the Local Secretary and those who have contributed to our meeting and also to the proprietor of the hotel and everyone who has contributed prizes."

Carried.

Mr. Gundrum—"I move that we meet in this place at seven o'clock local time this evening."

Carried.

Meeting adjourned until 7 o'clock p. m.

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#### FIFTH SESSION.

Meeting called to order by the President at 7 o'clock p. m.

President—"I will now appoint the committee to report on the advisability of a National Pharmacy Law and the qualifications of candidates: Messrs. O. Eberach, Ann Arbor; Prof. Prescott, Ann Arbor; A. C. Schumaker, Ann Arbor."

Here the further discussion of the report of the Special Committee of Revision of Pharmacy Laws was taken up and the matter finally disposed of on motion of Mr. Parker to refer the question back to the same committee to be brought up at a special meeting of the Association, to be called before the meeting of the next Legislature."

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#### SIXTH SESSION.

August 4, 1898.

Meeting called to order by the President at 9 o'clock a. m.

President—"Under the head of unfinished business I find that we have a special committee to appoint to investigate the mutual manufacturing pain as presented by Mr. Sourwine and the United States Pharmacal Company and the Wisconsin Pharmacal Com-

pany. Upon such committee I will appoint Mr. Walker, of Detroit; Mr. Rodgers, of Port Huron, and Dr. Ward, of St. Clair. The special committee on the Revision of the Pharmacy Law was only elected for one year. They have made their report and the report has been accepted and their time would naturally be out and it will necessitate the re-appointment of another committee."

Mr. Stevens—"I move that the committee be re-appointed."

Mr. Perry—"I would prefer not to be made chairman for the coming year, but am willing to serve as a member of that committee."

President—"If there is no objection to the request of Mr. Perry I will make Mr. Eberhardt the chairman of that committee."

Dr. Ward—"I would like to know if there is likely to be any expense in connection with this committee and its work and if there is I would be in favor of this Association paying the necessary expenses."

Mr. Perry—"There will be some expense if we have to go to Lansing."

President—"I believe that the expense of those two committees would have to be raised by a special assessment and I think that has been customary heretofore, and I believe there will be no trouble in doing that when the time comes."

Dr. Ward—"I was merely asking for information."

President—"That committee that I put you on, Doctor, is obliged to make a report so that your report will be put into the proceedings, that is the investigation of these different pharmaceutical companies."

Dr. Ward—"I understand that that was to be submitted to the executive committee for their approval."

President."Yes."

President—"Prof. Prescott, you were a delegate to the American Pharmaceutical Association, will you kindly give a report upon the matter?"

Prof. Prescott—"I was in attendance at the meeting of the A. P. A. and Dr. Lyons was also in attendance. The work of the meeting was very satisfactory, throughout, especially on education and legislation. The work was vigorous and effective and very full reports upon the action of the Boards of Pharmacy throughout the United States and a very complete summary of the operations of the pharmacy law in the States brought on

a very animated and pertinent discussion upon the improvements of pharmaceutical legislation.

"In measures for the gradual revision of the standard in many of the States there seemed to be concern as to the selection of members of the Board of Pharmacy. I judge that most of the States are not so fortunate as Michigan in that respect. That in many of the States political influences have controlled to the extent that there was only subordinate interest in pharmacy and very little competence as members of the Board had gained places which they could not fill satisfactorily. The work on the commercial section was very highly appreciated, especially the section of trade interests. It was brought into a somewhat narrow compass and gained the attention of nearly all the members of the meeting. In the section of Scientific Papers there was quite a large number of papers and the interest was sustained throughout, although as has been remarked in the papers the program of the entertainment committee encroached somewhat upon the time devoted to this section."

President—"We would be pleased to hear from Dr. Lyons."

Dr. Lyons—"I have nothing to add to the account given. As Prof. Prescott says, great interest was manifested and the scientific section suffered on account of the encroachment of the entertainment committee and one session we had, lasted until about midnight, and we only had about one-half the papers read on account of it. We seem to make little headway each year, but come a little nearer to comprehension of the problem before us and if we are faithful in attending every meeting in the course of a few years we will become familiar with it and not merely pass resolutions."

President—"We will now proceed to the reading of papers for a time. I believe our Secretary has a short paper and if it is agreeable to the Association we will now listen to the paper by Mr. Mann. Paper read by Mr. Mann on "Plan to Re-organize the Retail Druggists of Michigan."

#### A PLAN TO RE-ORGANIZE THE RETAIL DRUGGISTS OF MICHIGAN.

BY CHARLES F. MANN, DETROIT.

For several years past I have been firmly convinced that the present Michigan State Pharmaceutical Association needs reorganizing to be of much future practical benefit to the retail trade. Present conditions demand a business organization. At the time of the inception of the Association, business generally was

prosperous, and features that have since developed did not materially demand the attention of the Association. I do not believe that it is practical to embrace too wide a scope. I believe that our greatest efforts as an organization should be confined to those features most materially affecting our general welfare. The scientific and pharmaceutical parts of our business are of vast importance, but I believe that at the present time, with the abundant facilities for keeping abreast of the times in pharmacy, we can well afford to give almost the entire time of our annual deliberations to the commercial part of our business.

The average retail druggist depends more on his ability as a merchant than upon his qualifications as a professionalist, for an existence. In view of these conclusions I would propose re-organizing the Association into the Michigan Retail Druggists Association; placing the Association on a business basis, and limiting the membership, as the name implies, to retail druggists. The most deplorable part of this plan, at the outset, is that it debars from membership many of our present prominent and earnest workers, but I believe that all members so debarred would willingly give up active membership if the future of the organization were to be benefited thereby. An honorary roll might be continued, embracing such members as a re-organization would debar, and who might be solicitous of being identified with the Association.

I believe that better results can be obtained in any business organization by limiting the membership to those directly interested. With as many different interests represented as we have in our present Association there is bound to be conflict and restrictions on free discussions. While the interests of the manufacturer, the jobber and the retailer are in many respects common, there are times when they clash. The manufacturers and jobbers each maintain separate organizations. Why should not the retailer?

Whenever the retail druggists have a grievance to adjust they are told to organize. We all agree that the advice is wholesome, and in organization lies our only salvation, yet I know of no State in the Union that is sufficiently organized to be of any practical benefit to the trade. There is a growing sentiment that we must cut loose from pharmaceutical associations and organize business associations. I have met this sentiment in many of our members. Why cannot Michigan set an example, and place herself where the retailer can occasionally do some of the dictating?

There has never been a time when the benefit of organization among the retailers would have been better illustrated than in the present year. While the manufacturers and jobbers were lobbying with Congress on the war revenue, the retailers were remaining at home, because they were not well enough organized to send representatives. Now that the revenue has been adjusted, the retailer, in many instances, is asked to bear the whole burden of the tax, with an additional advance in price besides. Just so long as we sit idly by and let ourselves be overrun the other fellow is going to domineer over us, and I don't blame him very much, either.

I fully appreciate the fact that to well organize the retail druggists of Michigan is a large task, but it certainly can be done if a sufficient number of men can be enlisted in different parts of

the State to make a beginning. The best adjunct to State organization is local organization; the latter would readily stimulate the former. I would like to see a beginning at reorganizing accomplished by this meeting. There is no time like the present; we can make a start now as well as ever. I would suggest that in the new organization the office of Secretary be made permanent. Much of the success of an organization depends upon the efficiency of its Secretary. He does the bulk of the detail work, and the less you change the office the less you disturb the running machinery of the Association. The Secretary should be sufficiently compensated to insure competent work. No one can afford to give up a large share of his time without adequate compensation. In fact, a successful association requires funds enough to defray all necessary expenses of its officers. There has been too much of the few laboring and expending money for the benefit of the many in our present organization.

The fact that our present organization has fallen from a membership of over 1,000 to about 300 would warrant an attempt at reorganization. There must be dissatisfaction with the present methods to explain this falling off. When we consider that a large percentage of the 300 present members are not retail druggists we find ourselves trying to help along a cause with a pretty slim representation of the trade.

We can never accomplish anything as an organization unless we enlist the major portion of the trade to fight our battles. We must have strength, both numerically and financially.

The time is ripe for reorganization, and I hope that time for ample discussion will be accorded the question before we adjourn this meeting. As to suggesting any definite plan for reorganization, I think this could best be brought out by general discussion and placed in the hands of a competent committee.

President—"Gentlemen, we will devote a few minutes to the discussion of this paper."

Mr. Bennett—"I desire for one to extend thanks for the able paper of Mr. Mann. It is high time the retail druggists took this matter in hand and do something for themselves. I think Mr. Mann has struck the right keynote and has started right. I have met a great many retail druggists who raise the same objection to this organization and claim that it has not done us any good as a retail association which we certainly ought to have. Other trades are organized and are certainly using their strength and I think if we do not take matters in our own hands that the drug business will become so demoralized in the State that we cannot control it."

Mr. Pauly—"If you will allow me I will read a short paper I have prepared on the same subject."

Mr. President—When your committee invited the members of this Association to prepare papers on "Method of Re-organizing the Retail Druggists of Michigan for Their Mutual Benefit

and Protection." It made an acknowledgement, that something is amiss with the Michigan State Pharmaceutical Association as at present constituted. It is, perhaps, a little hard for parents to acknowledge faults in their child and for the friends of its early youth to see their pet plucked to pieces, but as sensible men we cannot help but see that this Association, while having done and still doing a great deal of good, has not reached the masses of Michigan retail druggists as it had been expected to do. There are very good reasons for this state of affairs, and as it will enable us to avoid the pitfalls by uncovering them, it will, perhaps, be wise to do so. First of all, our meetings are necessarily infrequent and between our annual meetings the members are only reminded of the existence of the Association by the appearance of the Secretary's printed reports, and later on by his polite invitation to pay dues. I am well aware that work of interest and tending to the welfare of the retailer is done by the officers and committees, but this work is almost unknown to the large majority of pharmacists, and therefore the membership continued small. Then as the annual meeting can be held only at one spot at the time it is, of course, almost inaccessible to the larger number, who cannot afford the heavy expense or the time consumed. As to the work done to oust the cutter from the land, we have to acknowledge our failure, and this brings me to the keynote of my plan to re-organize the druggists of this State, and that is to combine not only to maintain prices, but to buy cheaper.

I would not disorganize this Association, of which I am very proud, and on which such eminent men as Profs. Prescott and Stevens and others are throwing their luster. I would make it the basis, or, so to speak, the grand lodge which shall give power to smaller bodies, working under and with it. I would re-organize the local pharmaceutical bodies in the larger cities and organize new ones in districts and counties, according to the number of druggists contained in it, all working under dispensation from this body. I would make it the aim of this Association to obtain for its branches from manufacturers, importers and jobbers all the privileges granted purchasers of larger amounts. A certain manufacturer will allow special discounts on purchases over certain amounts. Few individual small dealers will be able to buy such a quantity of one class of goods and are, therefore, at a disadvantage. Now, if as a member of a branch of this Association, his purchases would be taken in account with the purchases of other members of his branch, he could reap the benefit of those additional discounts. It would only be necessary that he should be a member of good standing in his branch and that that branch is in good standing with the parent society. Each branch should fix sales prices according to the requirements of its neighborhood, and failure to keep up this schedule should be followed by forfeiture of all privileges. A system of exchange of goods could also be easily maintained. Of course, I am only outlining the idea, which would take quite a little work to formulate properly. The social and professional sides need not be omitted. Members of a branch would live within short visiting distances of each other and could often meet for social intercourse and discussion of business and professional questions, and become so interested that they would make a sacrifice to attend the annual meeting of

the parent society. How long do you think it would be until every druggist becomes a member? Not very long. When Mr. X finds out that his competitor across the street is entitled to various discounts by belonging to the society, he will join as quick as he possibly can; he may not become a factor in social or professional gatherings, but his membership will materially strengthen the society, for there is great strength in numbers. I would like to see some such plan tried and believe it could be worked for our mutual benefit.

L. PAULY, Grand Rapids.

President—"Are there any remarks?"

Mr. Prall—"I believe there is a reluctance to discuss this question because it contemplates a division of the different classes of membership we have in this Association, but I believe that it is a practical thing, the Retail Druggists' Organization, and I would like to ask if it necessarily implies that this organization be discontinued. It seems to me that we could retain this organization".

Mr. Parker—"Personally I have not much use for a man that sits aside and does nothing and says the Association fails to accomplish anything. That kind of a man sits in the store and finds fault, doesn't attend the Association and does not in any way do his part to correct the evil. If any man has any fault to find or anything to remedy he is himself to blame if he does not come here and report it. We should make the business part of the Association a prominent feature because self-preservation is the first law of nature. I would very much dislike to see the technical or professional part of it dropped, and I would like to see a little less time given to amusement and those druggists who reside in the cities and towns where these meetings are held would not feel that they are expected to do as much and by cutting down the time for the entertainment, to say one full half day, which would be ample time, we would have more time for the business of the Association.

"I like the papers and they draw out discussion and are pleasant, and I think all enjoy them, whether they are interested in the technical part or whether they are not, and I believe by a re-arrangement of our program that we can embody all the features of the Association and at the same time have ample time to attend to our business and none of it will remain undone and that time can largely be gained by limiting our pleasure. I heartily accord with what the writer of the paper has said with reference to the necessity of paying a little more attention to the business part of the organization."

Dr. Lyons—"I am glad that these papers have been presented and I don't at all agree with the idea that there has been any

material restriction on account of the society representing so many different interests. The time had come before this when those more specially interested in the retail drug trade should have formed their special section of this organization or formed organizations of their own, but what I have to say has to do with the importance of what was presented in the last paper. A general organization is one of comparatively little importance. It holds the general interests together but practical work can only be accomplished by local organizations. I should be very sorry to have it thought necessary to thoroughly reorganize this body and turn it into a retail druggists' business association. Of course, if this is the only way in which the retail druggists can secure the one object that is the important one why all right, but I do think the important thing to be worked after is that local organization, and I feel as though the central body can accomplish a great deal at once by securing this local organization."

Mr. Sherrard—"It seems to me that I cannot quite understand in what manner or way the professional members of the Association, and perhaps some others, manufacturers and wholesalers, have through any of their influence created the conditions which were the success of the Association from the business end of it. As long as I have been associated with this Association I have observed that the professional men have always had their shoulder to the wheel and have been interested on a par with the retail druggist himself regarding the retail druggists' interests so far as cut prices are concerned and those things have always been brought up and discussed and the most feasible methods for ratifying the evil have been championed and supported by the professional men of colleges, etc., and I think, perhaps, the manufacturers and wholesalers as well in the State. They are interested not only during the college year in preparing men to go into your drug stores and do the kind of work that ought to be done in a retail drug store, but during the whole year, and I don't believe you can get better advisers or supporters than those men, and if you arrange it after the method of Dr. Prescott and Dr. Lyons and have a special time set apart for the regular retail druggists' interests and so they could have a meeting of their own it would, I believe, be a good scheme. I believe some scheme could be brought about whereby that thing can be consummated.

Prof. Stevens—"I don't exactly like to see this Association change its present form at the present time still I would very much like to see this plan proposed by our Secretary tried for a certain length of time. I wish the present organization could for a time be suspended and would like to see a year or two tried as



an experiment. How would it do to have a meeting next year devoted entirely and to be attended only by the retail druggists of the State of Michigan. I mean those actively engaged in the retail drug business and give it a trial. At the meeting at Grand Ledge I think the retail body was given but one paper that could in any way be called scientific or pharmaceutical and I think all the rest of the time was taken up by the discussion of trade interests and was on subjects pertaining to the retail trade. Cannot we modify this so we could bring that about and I for one would be very happy to drop out for a year or two and see what can be done. We all certainly understand that no one has any feeling against any one individual, but it is for the benefit of the retail trade. I don't think the Secretary has the idea of keeping any one person out."

Mr. Anderson—"In regard to this retail druggists' association I have thought a good many years that while it is desirable and prominent and gives dignity to the Association that the scientific portion of it should not associate with it. There is a tendency or there might be a tendency in the minds of a great many retail druggists to believe that the Association has drifted more into the same condition that the American Association has. Business matters in the American Association, I think, take up very little of their time—I have never attended but one of their meetings. They are presumably a scientific body. A parallel drawn between a state organization and the American Association I don't think would be a right one.

"My opinion is that the retail drug trade has slowly changed until to-day the large manufacturing houses are doing about all the scientific part of the trade and the retail druggists are becoming merchants. I don't believe it would be wise to discontinue this organization and I do believe that it would be wise to conduct a strictly business association. I had that thought in view last year and talked on the subject that we ought to interest every retail druggist in the State and get together on a plain, straightforward business basis and situation and then when we had anything like this liquor question or other technical points we could get after it and not have a dozen or so do it, and then we could call on the State if it need be. What we need is an association where we don't have to meet regularly. Have it on the call of the Secretary who is a good business man who can watch the proceedings at Lansing and other places and take care of it and keep posted on what is going on."

Prof. Prescott—"I want to remind you that in its beginning the chief interest of this organization was in the establishment

of a pharmacy law and the looking after the operations of the Board of Pharmacy in obtaining some qualifications for those who are to practice Pharmacy in this State. I believe myself that the interest of every man engaged in Pharmacy, especially in the dispensing of Pharmacy, but whether engaged in Pharmacy or wholesale manufacturing, I believe that his interests have been greatly promoted and advanced by the Pharmacy laws in the several States. They may not be quite clear to all of us, but I think it is clear to every man that it would be disastrous to have gone without it if other States have it and it would not be well for us to remain as a general dumping ground.

"State Pharmaceutical Associations had their origin upon this interest, the elevation and qualification on the part of those who practiced Pharmacy. I do not know that it is necessary to continue in the active functions of this Association in that regard, but I quite agree with our Secretary and Mr. Pauly and others in this that commercial interests are the main interests and should be well looked after by this Association. Something has been said of the American Pharmaceutical Association. It was organized as a Pharmaceutical association some years ago and was divided into sections and the section of commercial interests became very active and very large and at one time it took about one half the time of the meeting and the result was not so satisfactory that this time has been preferred by the members and it has fallen back this two or three years.

"Now, I quite agree with Prof. Stevens in this that it would be well to have a meeting solely for the benefit of the retail druggists' interests and I quite approve of what he has said but I see one objection, which, in the light of Mr. Mann's paper, might be brought against him. That if the name and organization of this Association were continued the retail druggists of the state would not understand it as such and that it would take up the work in that course which is desired. On the other hand there is some considerable trouble and some uncertainty about organizing the new society. I should be quite willing to have the meetings of this Association adjourned for two, three or five years or subject to call and in the meantime a new organization of retail druggists formed if it is thought by members that it would be wise."

Prof. Stevens—"We have nothing before us but the discussion of this paper and I move that this question of re-organization be laid on the table for one year and that the next meeting be a meeting of the Retail Druggists' Association to have the idea of re-organization discussed and if it was not thought best at that

meeting they would be together and would be free to discuss the subject themselves."

Mr. Prall—"I should never vote to discontinue or disband this organization, but I am heartily in favor of having an organization of the retailers (Applause) and rise to suggest that we would like to hear from the jobbers and would like to hear from Mr. Davis."

Mr. Davis—"Before saying anything on this subject, I would like to say, as an accredited representative of the National Wholesale Druggists' Association that I have my credentials as representing that Association, and I have the power of the President to extend the greetings of that Association to this Association.

"In regard to this subject I think it would be a great mistake to pass the motion made by Prof. Stevens, as I think it would be very unwise to put this organization temporarily out of business, or permanently. There are, of course, a great many questions that have come up within the last few years that have resolved the drug trade in perhaps two factors, the professional pharmacist and the retail druggist. I think history will repeat itself as it has in the older countries and you will find almost entirely pharmacists and professedly few retail druggists, as they are here in the United States, and from my experience in attending nearly all the Wholesale Druggists' Conventions and Associations I am led to believe that you can accomplish a good deal out of state organizations, and retail organizations accomplish a great deal of good, too. The trouble with state organizations is this, that perhaps you have eight or nine hundred druggists in the State and out of that you can get 100 into an Association, and out of that you get perhaps 30 members in attendance at your annual meetings. Now I fully believe that it would be a very wise thing to continue this organization as it is, but recommend that local organizations be organized through the State. If members of a local organization can agree together you can accomplish some results; but have an accredited representative from those Associations in attendance at these meetings and they can voice the sentiment of these different organizations, but you will find in these local organizations that it will be very hard work for even those few men to agree. In my opinion it is the wise thing to do. I think that one of the mistakes made by an Association of this kind, as has been said here this morning, is that these meetings are too long, and I find on inquiry that quite a number of the retail druggists went home last night or this morning. If you could reduce the number of days of the meeting of your organization and accomplish more in that day or two I think you will get much better results and have a very much larger attendance." (Applause.)

Mr. Mann—"I would like to explain myself on the question. In the first place I want to be thoroughly understood that I did not want to be construed as being personal. I want this Association and our professional members especially to understand that there is nobody here who appreciates their value to this Association any more than I do. My plan would not necessarily bar them. My theory is that they should be made honorary members. We want them present to give us their ideas. I believe we can best discuss our matters among ourselves and not depend on diversity of interests to do it for us. I appreciate what the jobber and traveling man has been to this Association, but the sentiment I have tried to bring out here it seemed to me was prevailing quite largely. What I want is to further the interests of this organization and that is the sole object of what I have said.

"My main object in rising at this time is not to be misunderstood. It is sometimes pretty hard to convey an idea and put it in the shape that you want to convey it, and if I have hurt anybody's feelings I want to apologize now. I am working for the interests of the retail druggists of Michigan and I am willing and ready to abide by any decision on this matter that is thought best.

Prof. Stevens—"Cannot we set aside one day for the retail trade alone and let nothing else be done except for the retail trade at the next meeting on that day?"

Mr. Eberbach—"I am glad that this undercurrent, which has been noticed for some years past, has finally broken to the surface. I am satisfied that what our Secretary has said in the matter is due to remarks made by what we might term "growlers." They are parties that have attended the meeting of this Association but once. The Association has had similar symptoms before this and they come up and die out again because nobody ventured to bring the matter to a discussion. I, for my part, would object or be opposed to any plan to shelve this Association even for one year, and I think it would be valuable time lost and we would do so at the risk of the Association. I think the matter could be easily settled if we would follow up some plan similar to the one advocated by Prof. Stevens for the interest of the retail druggists, and if we could give them one complete day why it would be ample time for taking care of their matters. There are further points that could be worked and that is the plan of local organizations. If these local organizations would take up these different points of interest and bring them to this Association I think it could be settled in a very short time. A great many druggists have the idea that this Association has the power to correct all their matters and all they had to do is to join it and the Asso-

ciation will take care of them. Last year at Grand Ledge three-fourths of the time was devoted to commercial interests and if I am not mistaken there was but one scientific paper read through the whole session. At this session we devoted almost two days to the question of cutting and mutual manufacturing and the pharmacy law question and we have had, I think, just one evening with the scientific topic. I don't see where the retail interests are not taken care of. I would not like to see the Association shelved even for one year."

Mr. Phillips—"It strikes me if you eliminate the jobber, traveler and scientific man from our organization we will fall very flat."

Mr. Phillips—"I would call on Mr. Hill for a few remarks."

Mr. Hill—"I find that in Cleveland there is the strongest and best organization and they work together better than any organization I have met. Their local organization meets once a week and they spend a certain number of hours in executive session and at certain times outsiders are invited and it seems to me that Mr. Stevens' suggestion would cover the point that has been brought out."

Mr. Bennett—"I move that the papers be received and placed on file."

Carried.

Mr. Stocker—"I desire to emphasize the fact that a local organization is the whole situation, and I would merely make the suggestion that you ask the members present that are retail druggists that have no local organization in their neighborhood if they would be willing and will honestly try to bring out a local organization in their neighborhood after they have left this meeting."

Mr. Taggart—"It is a purely business organization with only business interests that surrounds our town and I think that local organizations are the only thing to do us any good."

Mr. Eberbach—"I would like to make the motion that our Secretary be instructed to open correspondence with some of the delegates in the different counties in the State for the purpose of opening up the movement of local organization and that the Secretary make a report of the results of it at the next annual meeting so as to see what can be done in that direction."

Mr. Parker—"I offer an amendment, and that is that this whole matter lay on the table until the next annual meeting."

Mr. Perry—"I hope that the amendment will not prevail, and I don't see why the Secretary cannot do that and try to start the ball rolling for local organization."

Mr. Parker—"My amendment was simply an amendment to the question that the Secretary take up this work."

President—"We will first vote on the amendment of the motion."

Carried.

President—"We will now vote on the original motion as offered by Mr. Eberbach."

Carried.

President—"It has come to me that one of our members has performed a great act of heroism and some of the gentlemen here feel like rewarding him for what he has done, and I will call upon Mr. Phillips."

Mr. Phillips—"Among us we have a hero. Last year at Grand Ledge this same hero was in evidence. We had our bicycle girls there, and the gentleman in question was very useful and instrumental in bringing about the bicycle race and here in Port Huron one of our gentlemen has rescued from the jaws of death a bicycle girl and we have a committee appointed to decorate this gentleman with the proper insignia of the Humane Society of Pharmacists and I will call upon that committee to decorate Mr. Perry." (Applause.)

Committee—"We will now decorate Mr. Perry with a paper bicycle."

Mr. Perry—"I very much appreciate your kindness and in the future will try to rescue some more."

Mr. Eberbach—"I would like to bring up the matter in regard to sending the delegates to St. Louis and I move that we reconsider the question as to guaranteeing their expenses by this Association."

Lost.

President—"In the event of this committee not being able to raise the requisite amount we would have no funds to send them with."

Prof. Stevens—"I don't think the question was understood."

Mr. Eberbach—"According to our Secretary's report we have dropped off 125 members on account of back dues, and unless the Association is ready to move for a special assessment we cannot engage in any of that kind of obligation."

Mr. Mann—"As I understand it, this fund was to be raised by special assessment and there has been collected some thirty or forty dollars at this meeting, and I was to try to get the rest from the balance of the members."

Mr. Perry—"The motion as passed obligated this Association to pay the expenses, however we got it."

President—"All those in favor of the matter being reconsidered will please stand up."

Carried.

Mr. Mann—"I move that this fund to send the delegates to the National Wholesalers' Association be raised by general subscription among our members."

Mr. Brown—"I would like to move that if only a sufficient amount of money is raised to send one, that we send one."

President—"We will now vote on the original motion."

Carried.

Dr. Ward—"As a member of the Committee on Resolutions, I would like to present resolutions on the deaths in the families of some of our members."

Resolutions read by Dr. Ward:

Having heard with extreme sorrow of the deaths in the families of two of our most esteemed members, Mr. A. B. Schumaker, of Grand Ledge, who lost a son by drowning, and Mr. James I. Main, of Tekonsha, whose son recently died.

Resolved, That we, as an Association and individually, do extend to them our heartfelt sympathies in their bereavements, and in testimony thereof would order that these resolutions be spread on our records.

GEO. J. WARD,  
F. W. R. PERRY,  
GEO. GUNDRUM,  
Committee.

Mr. Bennett—"I move that a copy of these resolutions be sent to the interested parties."

Carried.

President—"I will now introduce our new President."

Mr. Sourwine—"Mr. President and Gentlemen—I thank you very kindly for the honor you have conferred upon me and I can assure you on the beginning that it is not well merited. I don't believe that I merit this honor of presiding over the deliberations of an intelligent body like this, but, however, I will do my best in the year to come to further its interests and try to put it along to a self-sustaining basis. I see we have considerable discussion over the organization, and there has been considerable worry in regard to the number who attend our meetings, and I assure you that my efforts and energy will not be relaxed during the coming year to help in my feeble way to make the future organization a success. I will admit that I have been one of

those down-trodden druggists, worked hard and lost flesh, to say nothing of a little hair, but, like my predecessor, it is a nice thing to be the polished head of a firm, and if I don't get any worse and don't feel any worse and the sheriff don't knock at my door, I expect to be a druggist for another year. Gentlemen, I thank you."

Applause.

President Sourwine—"The next paper is that of Dr. Lyons."

Dr. Lyons—"I am not just ready at this moment and will have to ask you to release me for a few moments."

President—"We will call the next paper, that of Mr. Parker."

Mr. Parker—"I prepared a short paper on 'Perfumes' and will read it."

Paper on "Perfumes" read by Mr. Parker:

#### SOME RANDOM THOUGHTS ON PERFUMES.

The prudent business man is careful in all things; if a merchant he selects his stock with reference to the demand and sees to it that it is kept in a merchantable condition, two essentials necessary to the prevention of loss. These important factors do not seem to be fully appreciated by the average pharmacist, in so far as they relate to perfumes. The reason, no doubt, being lack of knowledge concerning them, rather than carelessness. There is no part of the pharmacist's stock so prone to deterioration as perfumes, the changes entailing pecuniary loss as well as dissatisfaction of customer. With the exercise of proper care both can be avoided. The finer perfumes are produced in part from pomade washings and essential oils, substances more or less affected by strong light, and particularly so by the sun's rays, the latter quickly breaking up the oils with the formation of odoriferous substances of an entirely different character, the changes being invariably retrograde. With the pomade washings, the color is dissipated and the natural flower odor entirely destroyed or so altered as to destroy the original bouquet. There are changes which occur quickly from exposure to the sun's rays, also from exposure to strong light, although the changes are not nearly so rapid. The products of the citrus family are particularly susceptible to these influences, as shown by the deterioration of lemon, orange and bergamot oils with which you are familiar; bergamot oil being an important constituent of that old-fashioned yet still popular bouquet, Jockey Club. Perfumes, like many other things, yield to the mandates of fashion; to-day the old-style odors are not in favor, the tendency is strongly toward the new creations which have been made possible through synthetical chemistry. The true odor of the heliotrope flower has been given us in heliotropin, a synthetical product; the lilac with all its flowery freshness yielded to terpineol, while vanillin becomes a rival for the prestige held by vanilla, and coumolin seeks to displace tonka bean. For years perfumers have whispered of



the time when musk, their sheet anchor, would become simply a memory, but along comes one of those fellows who has the habit of chopping up molecules into bits and recombining them with a product that comes dangerously near relegating to oblivion our valued and autocratic friend whose importance has been practically estimated by his weight in gold. To the perfumer the violet has been queen of flowers, its odor the refinement of odors; his vain dream has been the production of an odor true to nature.

To-day his dream is a reality and seemingly his art has reached the zenith of its glory when it wrests from the most beautiful of flowers its secret and gives it to us in ionone, the odor of fresh violets, with all their rich fragrance. Truly chemistry has developed mines of richness and information in the realm of odors. It has picked in pieces many of the basic substances used by the perfumer, isolated their active principles and thereby furnished a means of assay; not only that it has eliminated worthless substances from their natural combinations, giving us purer and better products. We need not be surprised if ere long chemists are able to produce artificially that beautiful product of nature, oil of rose. Carnation pink must now share its honors with the artificial. And now the simple jasmine is asked to step aside by a noisy claimant for recognition with ancestry that can only be traced to a piece of coal. And all of these things have taken place within the space of two decades. The writer has hinted at the necessity for conservatism in filling requirements for stock. He has seen in comparatively small stores as many as thirty stock bottles of perfumes open and on sale; from an examination he has found some of them partially spoiled, while others were utterly worthless as perfumes. Perfumes should not, as a rule, be stocked in excess of six months' requirements, and I very much question the ability of any dealer except the largest to successfully handle more than a dozen odors. Do not be tempted by the inducement of an extra discount, unless you have facilities for disposing of them quickly. Some odors, while they do not readily spoil, become so blended that they lose character and zest and are libelers. The careful pharmacist will at intervals remove from the stoppers and lips of the bottles the deposits formed, which are usually of a disagreeable odor and convey to the customer a false impression of the perfume. A delicate and flowery odor may leave a deposit which upon exposure becomes repulsive. Perfumes, like drugs, have physiological effects, and a knowledge concerning them is desirable. It is not infrequent that you are called upon to recommend an odor for the sick room. For this purpose the so-called Farina colognes are best, for the reason that they contain largely the citrus oils, lemon, orange and bergamot, which are in themselves refreshing and not cloying. In summer the odor of lemon and orange is grateful, producing, as is commonly stated, a "clean smell." Florida water and lavender also commend themselves for sick room perfumes; violet may be used, though it will not be so universally liked as Farina. Lavender is decidedly English; they swear by it. Flowery odors should always be given the preference. Musk and civet are vulgar, though indispensable in their place. It has been said that the nature of a perfumer could be told by his odors, refinement and delicacy being indicative of

like elements in character. In nature we have the gamut of odors, corresponding to the gamut of notes in music, harmony in either being produced by combination, not antagonism. For many years the French occupied the exalted position of masters of the perfumer's art, but to-day America is giving her a swift race for an equal division of the honor. If you seek quality, I should advise keeping your money in the family by buying the products of your own country. Remember, that by encouraging home industry you are doing your part toward developing the art at home. The time has passed when a perfume must bear a foreign label in order to be good. Indeed, I may add that the products of our own State, either in quality or style and finish of package, would reflect credit upon Paris, the perfumer's Mecca.

President—"In our limited amount of time I fancy we will not have time for discussion of this paper, still I would not want to cut off anyone who has anything to say."

Dr. Ward—"I would like to ask the gentleman whether the synthetical odors are better keeping than the others?"

Mr. Parker—"In the case of heliotropine my experience has been that it breaks down very quickly when exposed to light."

Dr. Ward—"Are there any of those synthetical products made in this country?"

Mr. Parker—"Not that I am aware of; I think they are all foreign products. It is a mistaken idea that you must go abroad in order to be able to purchase good goods. America to-day makes just as good and just as fine perfumes as any country on the face of the earth."

President—"We will now hear from Mr. Knill on the subject of 'How to Make a Soda Fountain Pay.'"

Paper on "How to Make a Soda Fountain Pay," read by Mr. Knill:

#### HOW TO MAKE A SODA FOUNTAIN PAY.

If you have an elite trade use thin glasses and serve everything with delicacy, but the trade in general would just as soon have thick glasses, as they imagine they are getting more for their money, and you save in breakage. Do judicious advertising and try to be original and get up some fancy drink and a name of your own for the same, as it will be a good ad for you.

Never dispense anything but the purest syrups and fruit juice and always make them yourself, as you can make them for less than half the cost of those you can buy, and much stronger. Never use ethereal or any artificial flavor, as they are injurious to anyone who drinks much soda water. Always be sure you have the purest ice cream; these will cost you more, but in the end you will get the trade. Always keep a courteous, clean, tidy soda water dispenser, one who is always ready to look after his customers and see that they are suited with their drinks, as you

cannot expect to suit everybody with the same mixture; and one that is a good manipulator of all kinds of fancy drinks, as there is more money in fancy drinks than in ice cream soda.

Be sure that you put the same amount of syrup in each glass. A marked tumbler to measure the quantity of the flavored syrups put in each glass is a great benefit. Make the syrup heavy enough and strong enough to suit the majority of your customers. Use a measure for your ice cream. These points are not only economy, but will give better satisfaction to your customers, as they will not be complaining that one glass is too sweet, and the other not sweet enough, and then again, you can keep better account of what your profits should be.

The best way to draw a glass of ice cream soda is to put your syrup in the glass first, then draw half a glass of the carbonized water on the same, then put in your ice cream and fill up the glass with the carbonized water, always using the small stream, as in this way you thoroughly incorporate the syrup with the water. Always be sure everything is kept clean, neat and tidy, and that you have everything convenient for the dispensers and your customers, and that you use nothing but the best and purest money can buy, and you will get the patronage in the end. There is more money in having a good trade than giving away cheap stuff. I do not mean by this to be extravagant, but have everything look attractive to the eye, pure and sweet.

Always be sure to get the best, most convenient and reliable soda fountain and equipments made. I consider James W. Tuft, of Boston, Mass., one of the best makers, if not the best. I have had his fountains and equipments in my stores for years, and can recommend them to anyone with pleasure.

President—"I think Dr. Ward has a paper on that subject."

Paper on "How to Make a Soda Fountain Pay," read by Dr. Ward:

#### HOW TO MAKE A SODA FOUNTAIN PAY.

Having had over thirty years' experience in making and dispensing soda water in a small country town, it occurred to me that it might not be amiss to say a few words as to the results of such experience, which might, perhaps, be of interest and profit to my brother druggists, like situated.

In the principal drug stores in the large cities, where the soda water business is made prominent, special expert dispensers are employed to manage that branch of the trade. These I do not presume to teach anything, as they could probably teach me.

My remarks are intended for those who make soda water a side line during the hot months of summer, with very little extra help in the store.

My first experience in the soda water business was with a counter apparatus, a very little more elaborate than an ordinary goose neck; a five gallon fount packed in ice under the counter, and the syrup kept in bottles, the principal of which were lemon, vanilla and sarsaparilla, sometimes ginger and something we called strawberry, and if we must confess it, the boss was induced now and then to put in a little something more stimulating

than any of these, for the stomach's sake or that tired feeling you know, and being kept in the geranium bottle it went by that name.

The artificial extract of strawberry, raspberry, pineapple, etc., were introduced and considered very fine, that is, when the customer did get an overdose and was sick; but everything went in those days and there was money in soda water, especially when you could foam it up good, and it was given the name of "sweetened wind." But in time, shaved ice, cream and ice cream were introduced, until now we have frappes, fizzes, phosphates and fancy drinks innumerable, and the animal, vegetable and mineral kingdoms are being searched for something new, and we poor country drug men are stuck on the names even. Of course, we look wise and say we are just out when asked by some one who has been to the city for some outlandish concoction which you don't know anything about. In my simplicity of heart and mind, I have sometimes thought that they must be improvements and began to be discouraged, but after some experience in trying to run some of these concoctions, I have come to the conclusion that for the soda fount in the country drug store, and mayhap for many in the cities, the plain, old-fashioned drinks, such as lemon, orange, strawberry, raspberry, vanilla and pineapple (since the advent of ice cream, coffee and chocolate), are the best, but they must be well made, and herein lies one of the secrets of soda water success.

But the intention with which I commenced this paper was not so much to give the history of my experiences as the results.

To come to the point, first, with regard to the counter apparatus, this need not be elaborate and will depend on the circumstances and means of the owner, the handsomer you can afford to have a fountain, other things being equal, the better. The main thing is to keep it looking neat and clean. The tumblers should not be used the second time without being washed, and well washed, in hot water and polished. A good supply is needed to do this, but it pays.

Have a generator and charge your own fount, which, especially the copper ones, should be kept well lined and clean. The water which you charge should be filtered and cold. When you have adopted a particular brand of material do not change it, as you will always know then what to expect. I use Natrona brand bicarbonate of soda and Grassoli or Cleveland sulphuric acid. Many now use the liquified carbonic acid gas, and say it gives good results. I have not tried it. In charging, take time and thoroughly impregnate the water with the gas. It is astonishing what a quantity of gas cold water well manipulated will take up. After charging keep the fount in a cold place.

An ice room in the cellar is a great convenience. After laying out dollars and dollars for ice chests and refrigerators, I have built an ice room which cost about \$15, and in it I keep my ice, charged fountains, syrups, etc., and it saves ice upstairs; and by the way, use plenty of ice, but do not waste it. I have found that covering the ice in the draft apparatus with some old newspapers is a great saving.

As to the syrups, make them yourself, or use the genuine fruit juices. In making lemon and orange I take one-half dozen

and grate the yellow part off the rind, and mix it in the water with some powdered sugar and let it stand several hours. I then express the juice of the lemon and mix it with this and strain into a gallon bottle, which I fill with simple syrup. For strawberry or raspberry I select a fine flavored berry in the season, put them into an earthen crock, crush them very little, and cover this mixture with one part of acetic acid U. S. P. with 10 or 12 parts of water, and after standing for twenty-four hours strain off the juice without pressure and add eight or ten pounds of sugar for each gallon of the juice. This is for immediate use. If it is to be kept for some time make it more concentrated or add a preservative. Pineapple may be made the same way, but with less acid, or by adding sugar or a little water to the crushed fruit. Vanilla syrup, of course, I make it in the usual way from the extract, but use the best. I have never had much success with special syrups, but have directed my efforts toward making the common ones as fine as possible. This affords my customers a means of comparison with others of the same kind, and if just as good or better than those they get elsewhere, gives a good impression of your fountain. I also advertise my fountain in the newspapers and by circulars, also by asking customers who come in to purchase goods to have a glass of my soda water, and talk it up. But I might continue this paper much further and take up your time and tire your patience, and then only come to the conclusion of the whole matter, which is, to make a soda fountain pay you must study, work and push.

GEO. J. WARD.

Mr. Anderson—"Certain delegates have come to this meeting and I doubt if they have been recognized officially. They are Messrs. Westervelt, James E. Davis, W. H. Stocker and Mr. Mosher. I would like to make a motion that we pass a resolution greeting these gentlemen and assuring them of our hearty welcome at this and at any future time, and that the Secretary communicate that resolution to the different Associations who have sent these delegates."

Mr. Parker—"I very much doubt if Mr. Mosher is a delegate from any Association, and I think he is a member of this Association, and I think Mr. Davis is the only accredited delegate from an Association."

Mr. Mann—"We had read earlier in our sessions a letter from the Secretary of the Wholesale Druggists' Association saying Messrs. Farrand, Williams & Clark and the Michigan Drug Company, of Detroit, would send as delegates Mr. Harvey Clark and Alanson S. Brooks or representatives. As I understand Mr. Knill, Farrand, Williams & Clark had delegated their power to Mr. Mosher."

President—"We will now vote on the resolution."

Carried,

President—"I will cordially give the gentlemen from the different Associations a place in a few minutes."

President—"We will now call on Dr. Lyons."

Dr. Lyons—"I prepared a paper on 'What a Botanist May See in Honolulu,' and will read it."

Paper on "What a Botanist May See in Honolulu," read by Dr. Lyons:

#### SOME THINGS A BOTANIST WOULD SEE IN HONOLULU.

By A. B. Lyons, M. D.

The City of Honolulu appears in a bird's-eye view, such as one may have from the summit of Punch Bowl Hill, like an immense park, so completely are its residences embowered in foliage of trees and shrubbery. The streets themselves, the stranger notes with some surprise, are almost wholly unshaded.

#### A CITY OF PALMS.

Conspicuous among the trees are the plumes of the numerous palms. Most stately of all is the royal palm, always rigidly erect, its head of comparatively few pinnate fronds surmounting the pale colored, smooth, gracefully tapering column of its stem. Less striking, but more beautiful, is the date palm, whose slender numerous fronds curve gracefully outward, interlacing to form gothic arches, and whose erect, shaggy, massive trunk is symbolic of strength in repose. There are palms with slender stems not more than three inches in diameter and twenty feet high; stocky palms with immense fronds, twice as large and three times as numerous as those of the royal palm, on a trunk two feet or more in diameter and only ten or fifteen feet high; palms with smooth, cylindrical, seemingly jointed stems, looking like gigantic bamboos; fan palms, feathery palms, palms with berry-like drupes, palms with cone-like fruit, palms bearing nuts, large and small, naked and covered with a husk. Queen of them all, with its slender, crooked stems, 50 to 100 feet high, its plume of magnificent, gracefully waving, yellow-green fronds, and its generous burden of fruit, is the cocoanut palm, which, however, finds the climate of Honolulu scarcely warm enough for its finest development.

#### INDIGENOUS PLANTS SELDOM SEEN.

One will find in Honolulu very few plants belonging to the aboriginal flora of the islands. Even the grasses and the weeds are nearly all exotic. The few "indigenous" trees occasionally planted are after all not aboriginal, having been brought from the Polynesian islands further south by the first settlers. Very few species peculiar to the Hawaiian Islands are to be found anywhere but in the forests of the interior, where such species mostly originated. A few only of the 135 or more native ferns are commonly planted in gardens. The one that will particularly

attract attention is the bird's nest fern, *Neottopteris Nidus*, J. Sm., which is frequently placed in the crotch of a branching tree trunk, its favorite location in its habitat. One would not recognize it at first glance as a fern at all. Its fronds are quite entire, three to five feet long by five to seven inches wide, forming a regular crown. The foliage is rather that of an endogenous plant like the banana than a fern, but the spores growing on its under surface betray it.

The tree ferns, *Cibotium* and *Sadleria*, which abound in the forests and which are peculiarly Hawaiian species, you will rarely see in cultivation in Honolulu. They do not thrive in so dry a climate. This is unfortunate, for nothing could be more ornamental. The finest of them is the pulu fern, *Cibotium Chamissoi* Kaulf., whose uncoiling young fronds are clothed with a glistening silky capillary chaff of an old gold color, fine and soft as the finest wool; formerly collected under the vernacular name of pulu for filling pillows and mattresses—the same thing that in Sumatra is known as pengawar djambi or paku kidang, used by surgeons as a haemostatic. The fern trees in the forests of Hawaii have trunks six to fifteen, even twenty feet high and six to ten inches or more (even two feet) in diameter.

Among the indigenous trees occasionally seen in Honolulu is the bread fruit. The young trees are very beautiful while they retain their symmetrical pyramidal form. The ample dark green rigid leaves, more than a foot long, pinnately lobed, make a very dense shade, and suggest the idea of extraordinary vigor of growth, which is further impressed by the great green globes of its fruit. In the older trees the beauty of symmetry is lost, but there remains an air of sturdy self assertion which seems to excuse their grotesque ugliness.

Another tree, doubtless imported like the breadfruit, by the aborigines, although now one of the most common of the forest trees, is the Ohia or mountain apple, *Eugenia Malaccensis*, Lin., occasionally planted in Honolulu, but not happy where there is so little rain. A noble tree it is, with its large, oval, deep green, shining leaves, and the scarlet tassels of its numerous blossoms, but it is when the fruit is ripe that the tree is in its glory—great clusters of the deep red, luscious-looking "apples" clinging about its branches and larger limbs everywhere. Juicy and refreshing the fruit is, but rather insipid.

Conspicuous among the trees planted for shade in the city, as well as in its native haunts in the valleys of the interior, by the paleness of its silvery foliage, is the kukui or candlenut tree, *Aleurites triloba*, Forst. The fruit looks like that of our black walnut, but is larger and frequently contains two nuts. These are nearly as large as the English walnut, with a shell as hard as that of the hickory, from which are carved effective ornaments, black as jet and capable of receiving a high polish. The kernels are very oily and were used by the natives to make torches, being simply strung on a thin splint of bamboo, whence, to this day, a lamp is in the vernacular an ipu kukui.

## NATURAL WRAPPING PAPER.

Another native plant, abundant in the mountains, you will often see planted for hedges—a *Dracaena*—more properly *Cordyline*—but with green, not red or variegated foliage. The natives call it "ti" (pronounced like our word tea), and find many uses for it. The roots, which are three to six inches thick and several feet long, are baked or steamed in imus or underground ovens, sugar being produced abundantly in the process, although none is present in the uncooked root. The baked root is eaten, or rather chewed, like sugar cane, and the juice sucked from it, but the principal use made of it by the natives is to produce *okolehao*, a kind of moonshiner's whiskey. The leaves take the place of wrapping paper in the fish market or grocery store. *Haolis* (white people) make a bungle of putting up packages with it, but the native Hawaiian is very dexterous in its use, and the imitative Chinaman succeeds equally well. The Hawaiian shows the same kind of dexterity in fashioning an extemporized drinking cup from a taro leaf.

Banana trees are everywhere to be seen, but not generally planted for ornament. The trade wind blows too constantly to allow them to keep a whole leaf more than a day or two, unless under shelter of a house. The stranger is surprised at the variety of bananas, as different from one another as the varieties of pear or apple. Some grow on small "trees," not more than six feet high; others run up fifteen, twenty and even twenty-five feet. The rapidity of growth is something amazing. Cut off the trunk of a half grown plant; you find that it is made up simply of the sheaths of leaf stalks, the center occupied by the coming leaf, which immediately begins to push forward, so that in a few minutes it projects noticeably, and in half a day it will have grown out several inches.

## A BONY BANANA.

Your guide will point out to you as the traveler's palm a plant which your botanist's eye will recognize as a banana rather than a palm. Unlike the common banana, it is a branching, perennial plant, and—another point of contrast—its great banners of leaves are of so tough a texture that they are but little split to pieces by the wind. The flower clusters are lateral, not terminal, and the bracts are persistent, so that the fruit is concealed from view. You find, however, that it resembles a banana in shape, although only three or four inches long. But the part of the fruit which in the banana is the edible pulp, is tough and horny, and your curiosity to know what is inside subsides after you have tried your jack knife on it a while. You will make a mistake, though, if you throw the refractory thing away. Take it home and let it lie a day in the sun, and you will find that your curiosity was justified. The tough fruit yields to the persuasion of the sun and splits into three valves, which spread and recurve, revealing one of nature's marvels. Each valve is found to hold two lines of seeds, each enveloped in a fantastic flannel jacket of a deep clear blue. What for? That is more than I can tell, but the bony bananas make very pretty ornaments in a botanist's collection.



## FRUIT TREES.

One of the most stately trees seen in Honolulu is the mango. Compact in its growth, the foliage is dense, consisting of linear lanceolate, rather rigid leaves, six to nine inches long, dark green when mature, but while young in the spring of a deep purple color, the new leaves contrasting with those of last year's growth, which, of course, in a tropical tree, are persistent. Following the flowers, which are not more showy than those of our native sumacs (of the same family), comes a fruitage which bends low the sturdy boughs of the tree. Nature outdid herself in forming and painting the mango. The curves of its outline are faultlessly graceful, the fruit oval but flattened a little and with the two sides unequally developed, giving it something of a comma shape. The fruit when ripe is of a rich yellow color, with the side exposed to sunlight crimsoned as in red cheeked apples. But there are as many varieties of mango as of apple.

A beautiful slight, but as yet a rare one in Honolulu, is a litchi tree (*Nephelium Litchi*) in full fruit. At a little distance you would mistake the separate fruits for exceptionally large and rich colored strawberries, and the trees are so loaded that they seem a mass of crimson. The fruit, about 1 1/4 inches in diameter, contains a single large brown seed, surrounded by a juicy but rather firm pulp like that of a Malaga grape, the whole covered with a rough skin, thin, but tough almost as parchment. The pulp is sweet with a flavor something like that of a musky grape, but with a suggestion of smokiness that leaves you divided in your mind whether you care to try another. If you decide in favor of such trial you may in time come to understand how the Chinaman can consider this the most luscious of all fruits.

There is nothing beautiful about a guava tree (*Psidium gualava*) except its pretty, white, rose-like flowers and its profusion of golden yellow, lemon-like fruit. The foliage is coarse and often disfigured by a black fungus growth, the habit straggling. It is rarely planted, but grows spontaneously, forming over extensive tracts a dense chapparal. Thousands of tons of the fruit go to waste every year. Under annexation, we may expect that these will be manufactured into jelly, for which there should be a good demand.

The plebeian guava has an aristocratic cousin, called the mandarin guava, which forms an ornamental tree of considerable size, its trunk and branches smooth from exfoliation of the bark, its foliage of rather small obovate, thick, shining coriaceous leaves; the fruit small and quite acid. Very similar to this in foliage is the strawberry guava, a small shrub; the fruit, borne in frequent, abundant crops, globular, an inch or less in diameter, red and of an agreeable flavor.

The orange family is well represented, of course; the trees, orange, lime, lemon, shaddock, Chinese orange, citron, etc., having a very strong family resemblance, and all ornamental, particularly when in fruit. The trees naturally have a more luxuriant growth than in California but are not more prolific.

A characteristic plant in Honolulu, especially about the houses of the natives, is the papaya (*Carica Papaya L.*). An erect trunk, generally but not always unbranched, bearing at the summit a

crown of large palmately lobed or divided leaves, 15 to 20 inches in diameter on petioles two feet long. In the axil of each in the female plant is a bud, blossom or fruit. There will thus be always fruit in all stages of growth, the lowest quite ripe and yellow, the rest green. The fruit is melon like in size and structure, obovoid and four or five inches in diameter, but the seeds are surrounded with a fleshy covering. A plant will ripen several of these fruits each week for several years. The male tree produces great spreading panicles of waxy white blossoms having a delicious spicy fragrance. Every one will tell you that a superannuated fowl, if hung a few hours (after dressing) in a papaya tree, or at any rate if wrapped in papaya leaves, will become as tender as a spring chicken, but no one will state this as the result of individual experiment.

#### A LAWYER WITHOUT A BRIEF.

Another tree which during the summer months will attract attention by a tempting display of fruit is the avocado (Spanish for advocate or lawyer), more commonly known as alligator pear (*Persea gratissima*). The tree is not usually very large nor is its foliage particularly attractive—rather coarse, somewhat rough obovate leaves six or eight inches long. The fruit is commonly of an elongated pear shape, sometimes club-shaped, occasionally curved like a crook-necked squash, but also sometimes quite spherical; smooth skinned, until quite mature green, then in some varieties changing suddenly to a dark purple like that of the egg plant fruit, in others becoming merely somewhat yellowish. The weight might range from 8 to 25 or 50 ounces according to the variety, or rather according to the individual tree, for each seems to be a law unto itself. The fruit contains a single very large seed of the shape and size of a boy's peg top; this is surrounded with a pulp of delicate texture which almost melts in one's mouth—not sweet nor acid, but having a characteristic nutty flavor that commends it highly to the educated palate. It is commonly eaten with salt and pepper, with or without vinegar, often with a mayonnaise dressing, or in a sandwich with thin bread and butter; frequently as an addition to bouillon or consomme soups. Unfortunately the fruit does not bear transportation well or it would be better known in America.

The custard apple (*Cherimoya*) is not much planted in Honolulu, although the fruit sometimes comes into market from other districts. The sour sop, a congener, you will meet with more frequently, the tree with foliage somewhat like that of the avocado, the large fruit, remaining green when mature, covered with prickly-like scales. As in other custard apples, the pulp contains, scattered through it, numerous brown seeds. It is fibrous and quite acid, resembling cotton batting soaked with a solution of cream of tartar. Few persons profess a fondness for it.

Over arbors you will often see trained a vine of luxuriant growth, with ample, nearly round leaves and fragrant dark purple flowers four inches or more in diameter, whose multitudinous rays proclaim it a passion flower. Among the leaves you will see here and there the large melon-like fruits, oval, pale green, with a smooth skin, six to eight inches long. This is the *grenadilla*, one

of the most delicious of tropical fruits. The edible part is precisely that which is rejected in the melon or papaya. Each seed is enveloped in a pulp which is agreeably acid and of a characteristic pleasant flavor. Only those with antiquated ideas about the cause of appendicitis hesitate about partaking of the delicacy, for to remove the seeds from the pulp would be a profanation.

Another passion flower produces a dull purple fruit of the size of a goose egg, which has a similar acid pulp, less delicate in flavor, but prized by many; it is known as the water lemon. Still another species, distinguished as the sweet water lemon, has a fruit somewhat larger and of a rich yellow color when ripe, the pulp, however, wanting in acidity and so not highly esteemed.

Other fruits that will be found in Honolulu are the South American mammeé apple, a fine tree with handsome foliage; the pomegranate, planted as an ornamental shrub rather than for the sake of the fruit; the pine apple in numerous varieties, the loquat (Rosaceous), the Java plum and so-called Spanish cherry (both Myrtaceous), and the familiar peach. Very few of the fruits of the temperate zone will grow in Honolulu. Apples, pears, plums, cherries, as well as such berries as the raspberry, blackberry, currant, gooseberry and huckleberry are conspicuous by their absence—strawberries, however, may be had any month in the year, and may be said to be in season nine months out of the twelve.

#### SOME SHADE TREES.

One of the finest exotic shade trees is the samang, commonly known in Honolulu as the monkey-pod tree. It is one of the numerous leguminous trees that have been introduced, most of them belonging to the acacia or to the cassia group, and having accordingly compound or de-compound leaves. This is a great spreading tree of rapid growth, throwing out its branches as near the ground as circumstances will permit. Like many other plants of the family, it has the habit of folding together its leaflets at night, so that after six o'clock it presents a peculiar wilted appearance, quite in contrast with its ordinary aspect, which is one of exuberant vitality. The foliage may become a little ragged in winter, but only preparatory to a more glorious rehabilitation, which culminates with its blossoming time, when for weeks the deep rich green of its foliage is seen as through a haze or mist of rose-purple. The blossoms, like those of other acacias, are tassels consisting mostly of the conspicuous filaments. A tree twenty years old may have a bole twelve or fifteen feet in girth and cover with its shade a circle a hundred feet in diameter.

#### THE AMERICAN COROB TREE, ALGAROBIA.

The samang obviously, like the banyan, also sometimes seen in Honolulu, is a tree for the wealthy man. For the poor, and for the rich as well, there is the algaroba, the tree which more than any other gives character to Honolulu landscapes. What the elm is to us in the northern states, the algaroba (Keawe) is to the kamaaina in Honolulu. Its lank, lawless, often contorted branches are too conspicuous, but they have a picturesqueness of their own, and if we have been inclined to take offense at these on artistic considerations, there is a grace in the poise of its slender branch-

lets and a witchery in their swaying to the breeze, and a child-like lightheartedness and abandon with which the tree gives itself to play with sunlight and shower, with gale and zephyr that make irresistible appeal to that in the human life that reflects the life universal.

Not on sentimental grounds only is the algaroba a favorite. It is a tree easily propagated and of rapid growth. Its diaphanous shade moderates the heat of the tropical sun, yet permits the grass beneath it to grow perfectly well; in dry seasons, indeed, saves it from scorching. It supplies fuel for the kitchen, fodder, in its saccharine pods, for the horses, and honey of finest quality for the bee hive. Finally its roots go so deep that they find water for vigorous growth where other trees can be kept alive only by irrigation. The arid lowlands on the lee coasts of Oahu and other islands have been converted from desert to forest by the algaroba tree. And the parent tree from which these forests have sprung still stands, not yet an old tree, near the Roman Catholic Cathedral on Fort street.

#### SCARCITY OF WILD FLOWERS.

In driving out into the country near Honolulu you are surprised to find how few wayside wild flowers there are. You look in vain for anything corresponding with our butter cups, daisies, sunflowers, golden rods, genians or asters. You may, very rarely, see a forlorn May weed—the plant was introduced long ago, but does not thrive and multiply. The bright colors are almost absent. Yes, there are white poppy thistles (*Argemone Mexicana*), as fine as you will see on our western plains; and over rocky ledges you may see spread a mantle of convolvulus with profusion of blossoms, perhaps white striped with pink, perhaps blue, pale but vivid, changing in the afternoon to pink; and here and there the sand near the shore may be carpeted with Nohu (*Zygophyllum tribulum*), and surely nothing could be more gay than the gold of its delicately fragrant blossoms—Mahukona violets they are called locally. But for the most part the flowers by the wayside are inconspicuous and of dull colors.

#### A GAY USURPER.

But you have forgotten Lantana! No, "that is another story." Lantana cannot be counted as a wayside wild flower. Originally introduced as a garden flower, it has taken possession of all the land, and would leave no road at all, if perpetual warfare were not waged upon it. Gay enough it is, but with its calico colors covering hill and dale and field, you look in vain for the individual prize which you could bring home as a wild flower.

#### GARDEN FLOWERS.

Returning to the city, where Lantana is proscribed, we look about for garden flowers. Every dwelling of any pretension shows evidence of the care of a "yard man" who keeps up the grounds. He could surely find time to plant and tend a flower bed, but it is quite the exception to find that he has done this. In place of flowering plants you will find bordering the driveway

and about the dwelling, foliage plants and ferns rather than flowers. Is it because the yard man is not a skilled horticulturalist, or is there good reason why preference is given to the foliage plants? Custom or fashion has something to do with it, but custom is generally based on reason, and here it is evident, in the first place, that shade loving plants must have the preference, and, in the second place, that plants which retain their beauty the year round and year after year will, by the law of the survival of the fittest, displace in a little while the flowering plants which are not equally perennial.

There is another reason. The eye delights in color, and will not be satisfied with the beauty of form alone. But in Honolulu the flower bed is not necessary in order to satisfy this craving. If one has a few oleander shrubs—not the spindling little plants you see in this country in tubs, but great perennial sheaves of bloom, redolent of intoxicating perfume—if the veranda is shaded by an alamanda vine, gorgeous the year round with its great golden blossoms, with perhaps a thunbergia giving generously blue to supplement the gold for a U. of M. graduate; or, if a richer blue is wanted, a clitoria vine; if your hedge row blazes with crimson or scarlet hibiscus blossoms, and a plumieria shrub strews your lawn daily from its superabundance with its stars of silvery gold, each in the molding of its exquisite form a miracle of beauty and divinely fragrant; if one has such wealth as this, what needs he more to satisfy his appetite for color? Even without such individual possession, he may have through the summer months almost a surfeit of color.

#### NATURE AS AN ARTIST IN COLOR.

A neighbor has perhaps an arbor covered with a Bougainvillia vine. When its blossoming time comes, the deep green of its foliage will be flecked at first with ruddy purple—more accurately magenta—soon the patches of color spread and become confluent until the whole arbor is a solid mass of color. It seems like an experiment in decorative art belonging to a primitive and barbaric stage. You are not sorry to find that nature has not repeated it. What is remarkable is that it is not the flowers of the bougainvillia that are thus colored. It is only the buds enclosing the inconspicuous flower clusters.

Another vine often trained over porches and barns, a bigonia, but unlike our trumpet creeper, makes the bougainvillia envious when it puts on its gala day dress. Here again is solid color, but no longer the suggestion of the dye vat. It is the color of living flame, not uniform in tint, but with lights and shades such as belong to veritable living flame, and the plant wears this gorgeous attire, wholly concealing the every-day garment of green which it covers, for weeks at a time.

More prized, but less common, is the stephanotis, whose fragrant clusters in their season transform the trellis into a snow bank.

The same snow effect is produced when the ungainly fleshy stems of the night blooming cereus (*Cereus triquetra*), which are piled up on stone fences, making the semblance of an evergreen hedge, clothe themselves, as they do once in three or four weeks,

through the summer months, with their giant lily blossoms. There is one of these hedges at Oahu College, a continuous stretch of two hundred yards, on which it is a common thing to see two thousand blossoms at once—sometimes there have been two or three times that number. Of course this snow melts under the morning sun. By 9 o'clock in the morning the glory is departed, although the following night may see it restored. The plant blossoms two nights in succession, with perhaps a few belated flowers for the third night, or a few that anticipate the general blossoming—then there will be a rest while a new crop of buds develops.

The flowers are provided each with a score of stigmas and a thousand stamens (by actual count); they are visited by swarms of honey bees and by other insects, and yet very rarely indeed is fruit matured. Only twice in thirty years, I believe, has fruit appeared, a very few each time, on the hedge I have just spoken of.

#### TREES ARE IN IT, TOO.

But trees vie with vines and humbler plants in decking themselves in lively colors. With us in the temperate zone, the blossoming time of a tree is of necessity short, and it must come generally not later than June or early July. The flowers, if colored at all, are generally white, the Tulp tree, Judas tree and a few Rosaceae forming the principal exceptions. Among tropical trees the colors are often brilliant, and the blossoming season may be greatly prolonged, and trees of the same species do not necessarily put forth their blossoms the same week or the same month even.

It is trees of the Cassia family, Caesalpineae especially, that light up with color the spacious grounds around Honolulu residences. Yellows are perhaps the most common. The species of Cassia, which are shrubs or shrubby climbers rather than trees have all yellow flowers, and the most of them are perennial bloomers. The Caesalpinias are sometimes shrubs, sometimes large trees, the blossoms being again commonly yellow. A very beautiful tree of this genus is the so-called yellow poinciana, with its massive head of finely cut foliage, the ample flower clusters giving place to purple pods so numerous as to give to the whole tree their ruddy hue.

The Bauhinias, sturdy climbers or small trees, remarkable for their two-lobed leaves (whence named from the two brothers Bauhin), give preference to pink and red rather than to yellow. In the St. Thomas tree the petals of the showy flowers have crimson spots on a paler ground, having been sprinkled, according to the tradition, with the blood of the martyred saint.

Very conspicuous throughout the summer months is the tree known in Honolulu as the golden shower; more prosaically as the pudding-stick tree; to pharmacists familiar, as purging Cassia, *Cathartocarpus Fistula*. The foliage is comparatively scanty, consisting of pinnate leaves with large entire leaflets. The cylindrical, deep brown pods, fifteen inches or more in length and three-quarters inch in diameter, are rather ornamental than otherwise as they sway with every breeze. In spring the buds

appear in drooping panicles; and then for four months there is a continuous succession of the pure primrose yellow fragrant blossoms that justify the popular name of the tree. The petals, which are of such a delicate bright color, are really coarse in texture, and this explains why they last as they do ten days or a fortnight without noticeable change.

Another species of the same, or a closely allied genus, has foliage resembling that of our locust tree, but with a peculiar graceful droop to its massive frond-like sprays; has pods that are similar, but longer, more slender, and slightly constricted at regular intervals of about a centimeter. Internally their structure is quite different; in the purging cassia the pod has transverse diaphragms separating the seeds, which are imbedded in pulp. In this species each seed is enclosed in a tiny box of woody texture, yet with walls not thicker than bristol-board. These little cells, in size and shape much like old-fashioned gunwads, lie inside the pod exactly like so many coins rolled up in brown paper. The flowers are produced in clusters, which closely surround the boughs of the previous year's growth. They resemble in size, shape and color the largest, deepest colored crab-apple blossoms, but the tree remains apparently in full bloom ten or twelve weeks, a joy to the eye to behold. There is in fact, as in the golden shower, a succession of blossoms, no one lasting probably more than about ten days. The only name known for the tree in Honolulu is simply *Cathartocarpus*. I have never learned its true botanical name.

I have left for the last mention of a genus which must be the first to attract the attention of the stranger, viz., *Poinciana*, nearly related to *Caesalpinia*. One species forms a rather straggling shrub, ten feet high, with thorny branches, and is known commonly as *Pride of Barbadoes* or as *Barbadoes Flower-fence*, the scarlet and orange blossoms, with crimped petals and long exserted stamens forming stately pyramids of bloom, each raceme occupying a month or more in expanding its numerous buds. A second species, *Sappan*, is very similar, except that the flowers are of an orange yellow color.

A third forms a fine tree of medium size, the smooth trunk expanded at the base laterally into buttresses corresponding to the principal roots, the foliage arranged in horizontal spreading layers and consisting of regular *Mimosa*-like leaves as beautiful as the fronds of a fern. Were it not for the great coarse pods, twelve to sixteen inches long by one and one-half inches wide, you would say that in the freshness of its new foliage at the close of the rainy season, it had not peer for beauty among the shade trees of the city. By and by it begins to put on its summer adornments. Here and there burns among the branches a dazzling glow of crimson. Day by day new flames burst out, and then they spread and coalesce, until the entire tree is ablaze. How the landscape is lighted up by these masses of solid color! In another tree such gaudiness of attire would seem vulgar. Here it is regal. Gold and crimson belong of right to this queen, for whom it is right, too, that the ground beneath should have its thick-piled carpet of the unfaded petals. There are other plants equally embued with a passion for brilliant color—the cardinal

flower of the meadow, the Zeuchneria of California hillsides, the Atamasco lily, the scarlet salvia, the rose and carnation of the gardens, but where among them all is one who can pour forth her passion in any such lavish creation? Well is the tree named Polciana regia.

Mr. Stringer—"I move that this paper be published in full in our proceedings."

Carried.

President—"Mr. Knill has a paper on "How to Keep Plasters."

### HOW TO KEEP PLASTERS.

Plasters should be kept at an ordinary temperature in a dry place, never keep them in the cellar or any place where they are apt to gather moisture, and exclude them from the air as much as possible in tin, wood, or very heavy cardboard boxes. The only way I know of displaying Spread Plasters is in a show case, and then always in their original package, never put them in your window as they are affected by the heat and would be spoiled by the sun. Never dispense or sell any but the very best made, and those you know are up to strength and properly medicated; there is no money in buying cheap plasters, as they will spoil on your hands and will not give satisfaction to your customers; and then again when you get a prescription from a doctor, you should know that the plaster dispensed is up to the standard of the United States Pharmacopoea, as the M. D. always expects to get the physiological effect of the plaster.

When selling plasters always tell your customers to wash and dry the parts thoroughly, where the plaster is to be applied, and if they will take equal parts of ether and alcohol, and apply to the parts by rubbing with the hands before applying the plaster, they will find it a great benefit, as it will open up the pores of the skin and allow the medication of the plaster to take immediate effect.

So far as Spread Plasters are concerned, the term dispensing has lost its earlier meaning, since the pharmacist of to-day is not called upon to prepare them, but dispenses Spread Plasters by handing them to his customers in good form and with proper directions for their use. This is true because of the modern machinery in use by the manufacturer which makes them better, cheaper, and more convenient for general use. The present custom is of advantage to all concerned since time and trouble are saved for the pharmacist, and the customer is guaranteed an article possessing full strength as demanded by the United States Pharmacopoeia, if the pharmacist is careful to buy from a reputable firm.

Mr. Pauly—"I move that we extend a vote of thanks to Mr. Webber, the retiring President, and officers."

Carried.



Mr. Bennett—"I would like to include in the resolution a similar vote of thanks to our Secretary."

Carried.

Mr. Mann—"I move that Mr. Sherrard's paper on 'Adulterations' be published in our proceedings."

Carried.

Dr. Ward—"I make a motion that the papers filed with the Secretary be read by title and published in the proceedings."

Carried.

Prof. Prescott—"Under the last vote of the Association I want to present the title of the paper by Mr. Sherrard. It is 'A Comparison of the Relative Amount of Time Required by the Different Incorporated Schools of Pharmacy in the United States and Canada, Including Practical and Theoretical Work.' "

Mr. Stocker—"I wish merely to take a little time to thank you for the honor you have accorded me, but I was sent here with a special request to the President of this Association that he would appoint one or more delegates to attend a special call of meeting of the Indiana Pharmaceutical Association that will be held in our city next week. We will probably be able to get a special rate on account of its being the place of the national meet of the American Wheelmen, and we will try and make things hot for whoever you send there."

President—"I will say that I will appoint all the committees that come under my jurisdiction as soon as possible."

Moved and supported that the chair be so directed.

Carried.

President—"We will call for the report of the Committee on the Award of Prizes."

The committee reports as follows:

**Best Paper on Pharmacy:**

First—Mr. Parker. Your committee can only regard the one paper as fairly under the head of Pharmacy, and that is the one of A. S. Parker, and he is entitled to the prize.

**Best Paper on Advertising:**

First—Dr. Ward.

Second—B. Schrouder.

**Best Paper on Side Lines:**

First—E. E. Calkins.

Second—L. Pauly.

**Best Paper on Plasters, etc.:**

First—H. C. Knill.

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**Best Paper on Method of Reorganization:**

**First—C. F. Mann.**

**Second—L. Pauly.**

**Best Paper on Soda Fountains:**

**First—Dr Ward.**

**Second—H. C. Knill.**

(Signed)    **A. B. LYONS,  
A. S. PARKER,  
H. J. BROWN,  
Committee.**

Mr. Parker—"I desire to submit a report in the minority on the award of prizes, and wish to say that I was not a contestant for any prize, and the award was made entirely without my knowledge, and I must say that I very much prefer that it be given to another.

Moved and supported that we adjourn until our next annual meeting in Jackson in 1899.

**Carried.**

## CONSTITUTION AND BY-LAWS.

Adopted at Petoskey, Michigan, July 13, 1887.

### PREAMBLE.

Whereas, Organization, concert of action, and comparison of ideas are necessary to the advancement of any cause, and believing that a State Pharmaceutical Association will accomplish these objects; therefore

Resolved, That we, druggists of the State of Michigan, whose names are hereunto attached, in compliance with an act entitled, An Act to Organize the Reputable Pharmacists of the State of Michigan into an Association to be known as the Michigan Pharmaceutical Association, approved April, 1887, do hereby organize ourselves into such Association, and adopt the following Constitution and By-Laws:

### ARTICLE I.

This Association shall be called the Michigan State Pharmaceutical Association.

### ARTICLE II.

The object of this Association shall be to unite the reputable pharmacists and druggists of this State, to improve the science and art of pharmacy, to elevate its standard, and ultimately, to restrict the practice of pharmacy to properly qualified pharmacists, and to promote by all legitimate means the business interests of its members.

### ARTICLE III.

#### MEMBERSHIP.

Every pharmacist of good moral and professional standing, whether in business on his own account or employed by another, and teachers of pharmacy, materia medica, chemistry and botany, who may be specially interested in pharmacy, shall be eligible to membership.

### ARTICLE IV.

#### OFFICERS.

The officers of this Association shall be a President, three Vice-Presidents, a Secretary, an Assistant Secretary, to be selected from the place of next meeting, a Treasurer, and an Executive Committee of five members, all of whom shall be elected

by ballot at the third sitting of the regular annual meetings of the Association, and to serve until their successors are elected.

There shall be elected a Committee on Trade Interests of seven members, who shall serve three years, or until their successors are elected. Three members shall be elected in 1896, two in 1897, two in 1898, and so in rotation.\*

\*As amended at the 1895 meeting.

## ARTICLE V.

### DUTIES OF OFFICERS.

Section 1. The President, or in his absence or inability to serve, the Vice-Presidents in their order, shall preside at all meetings of the Association, until the close of such meetings; call special meetings at the written request of twenty-five members; fill all vacancies that may occur in the offices of the Association between the annual meetings; shall present at each meeting a report of the Association, and perform such other duties as pertain to the office.

Sec. 2. The Secretary shall keep a record of all the proceedings of the Association. He shall keep a roll of the names of the members, with their residence, date of admission, and any subsequent changes. He shall read all communications, conduct all correspondence of the Association, notify all members four weeks in advance of each annual meeting, at each annual meeting render a report of the duties performed by him since the last annual meeting, and in conjunction with the Executive Committee, shall superintend such publication as the Association may direct. He shall notify members of their election; also notify members of committees of their appointment and election, and furnish each member of the committees with the names of their associates on said committees. He shall receive and collect all moneys for dues, and from all other sources, giving receipts for the various amounts, keep a correct account thereof, and pay the same to the Treasurer, taking his receipt therefor. He shall give a sufficient bond, subject to the approval of the committee. He shall file a copy of the proceedings of each annual meeting in the office of the State Board of Health, and the Secretary of State, and shall keep at least three copies in his own office.

Sec. 3. The Treasurer shall have charge of all the funds of the Association, for which he shall be personally responsible, pay all orders of the Secretary when countersigned by the President, render a full report of his transactions at each annual meeting, and report the state of the treasury when called upon by the Executive Committee. He shall give a sufficient bond, subject to the approval of the Executive Committee.

Sec. 4. It shall be the duty of the Secretary and Treasurer to turn over to their successors, without unnecessary delay, all papers and property of the Association committed to their care.

Sec. 5. It shall be the duty of the Executive Committee to aid the local Secretary in making arrangements for the meetings of the Association, to investigate applications for membership,

audit all bills against the Association, and to attend to all business not otherwise assigned.

Sec. 6. The Committee on Trade Interests shall investigate all complaints regarding trade matters made by members of this Association and take such action thereon as they may deem proper, rendering comprehensive reports at each annual meeting of the Association. The Committee shall have authority to employ a Trade Secretary, fixing his compensation, if any, and the members of the Committee shall be reimbursed for actual traveling and hotel expenses incurred in attending the meetings of the Committee or in pursuing investigations authorized by the Committee.\*

\*As amended at the 1895 meeting.

## ARTICLE VI.

### MEETINGS.

The annual meeting of this Association shall be at such time and place as the Association shall previously determine.

## ARTICLE VII.

### BY-LAWS.

This Association may establish for its future government and regulation, such By-Laws, not in conflict with the Constitution, as may be deemed proper and desirable.

## ARTICLE VIII.

### AMENDMENTS.

Every proposition to alter or amend this Constitution shall be submitted in writing and received at an annual meeting, and may be voted for at the next annual meeting, when, upon receiving the votes of three-fourths of the members present, it shall become a part of this Constitution.

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# BY-LAWS.

## ARTICLE I.

### QUORUM.

Twelve members shall constitute a quorum.

## ARTICLE II.

### MEMBERSHIP.

The names of persons applying for membership, with their age, residence, present occupation, and length of experience in

pharmacy, shall be presented in writing, signed by two members in good standing, to the Executive Committee, and if favorably acted upon by that committee, the candidate shall be considered elected. A vote of all the members of the Executive Committee shall be required for an election.

### ARTICLE III.

#### FEEs.

The initiation fee of this Association shall be one dollar, which fee shall accompany the application.

### ARTICLE IV.

#### DUES.

Every member shall pay to the Secretary, on or before the first day of January of each year, the sum of one dollar. It shall be the duty of the Secretary to draw on all members when two years in arrears, previously sending notice of his intention to draw at a certain date. Any person neglecting to pay dues for three successive years, shall forfeit membership. Dues paid by new members before an annual meeting shall apply on the present year. Those becoming members and paying dues after an annual meeting shall receive credit for the following year.

### ARTICLE V.

#### CERTIFICATE OF MEMBERSHIP.

Each member of this Association may, if he desire, upon the payment of one dollar, receive a certificate of membership, which shall be issued by the Secretary, provided said member is not in arrears for dues.

### ARTICLE VI.

#### COMMITTEES.

Section 1. The President shall, before the close of each annual meeting, appoint the following committees (of which he shall be an ex-officio member), each to consist of three members: Committee on Pharmacy and Queries; Committee on Legislation; Committee on Adulterations.

Sec. 2. The Committee on Pharmacy and Queries shall report annually respecting scientific progress, discoveries and investigations during the year, and near the close of each annual meeting a proper number of questions of scientific or practical interest, and shall secure the acceptance of as many of such questions of investigation as may be practicable, to be reported upon at the next annual meeting.

Sec. 3. The Committee on Legislation shall keep a record of, and compile for reference, the enactments of the different States regulating the practice of pharmacy and the sale of medicines,

They shall report, at each annual meeting of the Association, what legislation on the subject has occurred during the year, and submit such recommendations with regard to legislation in this State as shall appear to them proper.

#### ARTICLE VII.

##### SUSPENSIONS—AMENDMENTS.

Section 1. These By-Laws shall not be suspended without the consent of two-thirds of the members present.

Sec. 2. Any amendment to these By-Laws must be made in writing and read before the Association at one sitting, and laid over to a subsequent sitting, when, upon receiving the votes of two-thirds of the members present, it shall become a part of these By-Laws.

#### ARTICLE VIII.

##### DELEGATES.

Five delegates and five alternates shall be annually elected to attend the meeting of the American Pharmaceutical Association.

#### ARTICLE IX.

##### PROCEEDINGS.

The proceedings of the Association, and the roll of officers, committees, and members, shall be published annually under the supervision of an editor, who shall be elected annually, and who shall be paid from the funds of the Association, and a copy of the proceedings shall be sent to each member of the Association less than two years in arrears.

#### ARTICLE X.

##### EXPULSION OF MEMBERS.

Any member or officer accused of violating the Constitution or By-Laws, or other improper conduct, may be expelled or removed from office by a two-thirds vote of all the members at a regular meeting. In every case definite charges must be preferred in writing, to which shall be affixed the names of not less than three members of the Association, and the Secretary shall send the accused person a copy of the charges, and notify him in writing, at least two weeks in advance, of the time when his case will come up for hearing, offering him an opportunity to be heard in his own defense.

#### ARTICLE XI.

##### EXHIBITS.

The Association invites manufacturers and others to exhibit at the annual meetings, crude drugs, chemicals, pharmaceutical preparations, and such objects as possess a general scientific or special pharmaceutical interest.

**ARTICLE XII.**

**RULES OF ORDER—ORDER OF BUSINESS.**

**Section 1.** The Rules of Order of this Association shall be those in common use in deliberative assemblies, and such special rules as may be adopted by the Association.

**Sec. 2.** The order of business shall be such as the Executive Committee shall prescribe.



## List of Members.

If you change your residence, if your name and address are incorrectly given in Membership Roll, or if you hear of the death of a fellow-member, please notify the Secretary at once.

|                                                                            |      |
|----------------------------------------------------------------------------|------|
| Adams, H. M., Port Huron.....                                              | 1888 |
| Akey, J. V., cor. Central and Vernon Aves., So., Los Angeles,<br>Cal. .... | 1885 |
| Anderson, C. N., 43 Champlain St., Detroit.....                            | 1888 |
| Anderson, Ellery, Midland.....                                             | 1884 |
| Atkinson, F. E. Gladwin.....                                               | 1888 |
| Atkinson, Henry M., Harbor Springs.....                                    | 1894 |
| Bachman, M. H., S'anton.....                                               | 1883 |
| Bailey, Dr. John R., Mackinac Island.....                                  | 1890 |
| Bailey, M. G., Mackinac Island.....                                        | 1888 |
| Baird, James J., Lansing.....                                              | 1898 |
| Baker, H. G., Michigan Drug Co., Detroit.....                              | 1888 |
| Banister, John L., 201 S. Washington St., Saginaw, E. S....                | 1890 |
| Barle, H. L., 535 Macomb St., Detroit.....                                 | 1887 |
| Barnard, Wm. Dwight, 427 River St., Manistee.....                          | 1891 |
| Bassett, A., 105 Hancock Ave. E., Detroit.....                             | 1884 |
| Bassett, J. A., 201 N. Washington St., Ypsilanti.....                      | 1885 |
| Bauer, A. C., Lansing.....                                                 | 1887 |
| Beach, L. F., Bay City.....                                                | 1884 |
| Beacham, C. B., Romeo.....                                                 | 1884 |
| Bell, John, Lexington.....                                                 | 1888 |
| Bennett, John S., Lansing.....                                             | 1897 |
| Bertram, J. P., 13 Main St., Westphalia.....                               | 1883 |
| Bird, Harry Lamont, Benton Harbor.....                                     | 1898 |
| Bogart, Frank E., Farrand, Williams & Clark, Detroit.....                  | 1890 |
| Borradalle, Frederick H., Lansing.....                                     | 1892 |
| Bostick, Chas. H., Manton.....                                             | 1898 |
| Bradshaw, John P. H., Davison.....                                         | 1894 |
| Bristol, F. E., Lapeer.....                                                | 1884 |
| Bristol, U. D., Lapeer.....                                                | 1884 |
| Brooks, Alanson S., Michigan Drug Co., Detroit.....                        | 1890 |
| Bross, C. M., Jerome.....                                                  | 1880 |
| Brown, H. J., Ann Arbor.....                                               | 1883 |
| Bricker, Chester E., Port Huron.....                                       | 1898 |
| Brundage, F., Muskegon.....                                                | 1886 |
| Bugbee, C. A., Traverse City.....                                          | 1885 |
| Burch, Mrs. Florence, Adair.....                                           | 1898 |
| Burdick, H. H., 611 E. Midland St., West Bay City.....                     | 1884 |
| Burley, David H., Almont.....                                              | 1890 |
| Burwell, R. G., 2330 Gratiot Ave., Port Huron.....                         | 1884 |
| Cadlip, Samuel, Iron Mountain.....                                         | 1896 |
| Cagwin, Joel E., 11 S. Story St., Boone, Iowa.....                         | 1893 |
| Caldwell, J. W., 242 Grand River Ave., Detroit.....                        | 1888 |
| Calkins, E. E., Ann Arbor.....                                             | 1888 |

|                                                              |      |
|--------------------------------------------------------------|------|
| Chandler, C. A., Cambria.....                                | 1884 |
| Church, H. M., Holly.....                                    | 1883 |
| Church, Wm. D., Parke, Davis & Co., Detroit.....             | 1889 |
| Clarke, A. B., Gobleville.....                               | 1889 |
| Clark, A. G., White Cloud.....                               | 1883 |
| Clark, H. C., Farrand, Williams & Clark, Detroit.....        | 1888 |
| Clark, J. K., Blissfield.....                                | 1884 |
| Coe, Thomas D., Romeo.....                                   | 1884 |
| Cohoe, Adolph, Capac.....                                    | 1890 |
| Cole, V. W., Petoskey.....                                   | 1896 |
| Colman, H. G., Kalamazoo.....                                | 1884 |
| Colwell, Dr. C. B., Jackson.....                             | 1886 |
| Cook, Charles E., 912 Van Buren St., Bay City.....           | 1884 |
| Coppernoll, Geo. T., Port Huron.....                         | 1898 |
| Cornell, David A., Copemish.....                             | 1892 |
| Cosford, Dr. J. W., Mancelona.....                           | 1887 |
| Crawford, J. B., Ithaca.....                                 | 1885 |
| Cress, Edward A., Minden City.....                           | 1890 |
| Crispe, John, Plainwell.....                                 | 1896 |
| Crowley, J. J., 421 Michigan Ave., Detroit.....              | 1884 |
| Culver, Dr. R. W., South Haven.....                          | 1886 |
| Cummer, R. J., 176 Euclid Ave., Cleveland O.....             | 1884 |
| Curran, E. S., St. Joseph.....                               | 1883 |
| Cutler, W. R., Ionia.....                                    | 1883 |
| Darling, G. S., Tawas City.....                              | 1888 |
| Davis, James E., Michigan Drug Co., Detroit.....             | 1884 |
| Dayton, A. J., 674 Wealthy Ave., Grand Rapids.....           | 1887 |
| Dean, H. M., Niles.....                                      | 1887 |
| Dendel, W. H., Hopkins Station.....                          | 1892 |
| Dennis, G. C., Rochester.....                                | 1888 |
| DePuy, C. E., Stockbridge.....                               | 1888 |
| Dillon, James E., East Tawas.....                            | 1887 |
| Dorrance, A. A., Coldwater.....                              | 1883 |
| Doty, Wirt P., Detroit.....                                  | 1897 |
| Dunlap, Thomas, South Lyon.....                              | 1884 |
| Dupont, William, 182 Michigan Ave., Detroit.....             | 1883 |
| Eberbach, O., Ann Arbor.....                                 | 1883 |
| Fabry, Dr. John J., Benton Harbor.....                       | 1898 |
| Farrand, Jr., J. S., Farrand, Williams & Clark, Detroit..... | 1888 |
| Fauckboner, Orin A., 429 E. Bridge St., Grand Rapids.....    | 1890 |
| Fay, O. J., Carleton.....                                    | 1888 |
| Fenton, George L., Kingsley.....                             | 1885 |
| Fildew, A. S., 21 Clinton Ave., St. Johns.....               | 1884 |
| Foote, C. E., Foote & Jenks, Jackson.....                    | 1896 |
| Fordham, M., Elmira.....                                     | 1885 |
| Fordham, W. W., Elmira.....                                  | 1884 |
| Fritz, T. H., Cass City.....                                 | 1885 |
| Gates, Dr. T. O., East Tawas.....                            | 1884 |
| Gerow, J. E., Ovid.....                                      | 1883 |
| Gill, W. J., Beacon.....                                     | 1884 |
| Glazier, F. P., Chelsea.....                                 | 1885 |
| Goodrich, L. A., Hillsdale.....                              | 1884 |
| Goodwin, N. A. N., Eli Lilly & Co., Indianapolis, Ind.....   | 1896 |
| Grandy, Francis, Fairfield.....                              | 1885 |
| Grunow, O. H., 238 Randolph, Detroit.....                    | 1884 |

|                                                                      |      |
|----------------------------------------------------------------------|------|
| Gundrum, George, Ionia.....                                          | 1883 |
| Hackett, P. E., Wolverine.....                                       | 1886 |
| Haines, Edwin J., Duroy & Haines Co., Sandusky, O.....               | 1890 |
| Hale, H. G., Nashville.....                                          | 1883 |
| Hall, Perley W., Benton Harbor.....                                  | 1898 |
| Hallock, D. S., 18th and Fort Sts., Detroit.....                     | 1897 |
| Harwood, Henry, Ishpeming.....                                       | 1885 |
| Hayes, Newland, 313 Forest Ave. W., Detroit.....                     | 1894 |
| Hays, J. A., Ph. G., 147 S. 18th St., Pittsburg, Pa.....             | 1895 |
| Heffernan, Thomas, Baldwin.....                                      | 1895 |
| Helm, Henry, Saginaw, E. S.....                                      | 1897 |
| Herman, Bruno A., St. Joseph.....                                    | 1898 |
| Hessler, Wm., M. D., 364 Jos. Campau Ave., Detroit.....              | 1883 |
| Hessler, W. F., Rockford.....                                        | 1895 |
| Hicks, W. H., Big Rapids.....                                        | 1883 |
| Hinchman, C. C., Michigan Drug Co., Detroit.....                     | 1885 |
| Hinchman, J. M., Michigan Drug Co., Detroit.....                     | 1888 |
| Holden, Jesse F., Brown City.....                                    | 1898 |
| Hopkins, F. S., Benton Harbor.....                                   | 1888 |
| Hopper, Arthur G., Alpena.....                                       | 1896 |
| Hueber, Chas. F., Port Huron.....                                    | 1898 |
| Hueston, G. C., Northville, Box 17.....                              | 1885 |
| Hunt, A. O., St. Johns.....                                          | 1885 |
| Hunt, Dewitt H., St. Johns.....                                      | 1888 |
| Hurd, A. E., Davison.....                                            | 1884 |
| Hutchins, Lee M., Hazeltine & Perkins Drug Co., Grand<br>Rapids..... | 1892 |
| Hutchinson, Barzilla S., Lyons.....                                  | 1892 |
| Hyde, A. O., Marshall.....                                           | 1883 |
| Ingram, F. F., Detroit.....                                          | 1891 |
| Jack, G. T., Michigan Drug Co., Detroit.....                         | 1890 |
| Jenks, Chas. C., Foote & Jenks, Jackson.....                         | 1898 |
| Jones, H. Otis, New Buffalo.....                                     | 1895 |
| Johnson, J. G., Traverse City.....                                   | 1884 |
| Johnson, O. C., Ann Arbor.....                                       | 1884 |
| Kavanagh, E. A., 222 W. Washington St., Jackson.....                 | 1898 |
| Kemink, Theo., Valley City Drug Store, Grand Rapids.....             | 1884 |
| Kenyon, W. W., Howell.....                                           | 1884 |
| Kephart, H., Berrien Springs.....                                    | 1883 |
| Kimmich, Robert S., 202 Washington Ave. N., Lansing.....             | 1897 |
| Kingsley, John, M. D., Manistee.....                                 | 1889 |
| Kirchner, J. S., 609 Congress St. E., Detroit.....                   | 1895 |
| Kirkwood, P. B., Negaunee.....                                       | 1885 |
| Knill, Jr., H. C., Port Huron.....                                   | 1888 |
| Knox, John W. T., 121 Twentieth St., Detroit.....                    | 1898 |
| LaRue, C. M., 610 E. Midland St., West Bay City.....                 | 1885 |
| Law, Dr. W. J., Baraga.....                                          | 1889 |
| Leland, N. P., Durand.....                                           | 1886 |
| Lentz, Theo., Campbell Ave. and River St., Detroit.....              | 1885 |
| Lever, Henry, M. D., Fremont.....                                    | 1884 |
| Leyerer, George S., 1102 Columbus Ave., Bay City.....                | 1890 |
| Lipinski, Julius, 156 Gratiot Ave., Detroit.....                     | 1895 |
| Little, A. F., Aarwood, Kalkaska Co.....                             | 1885 |
| Lohrstorfer, Joseph, Port Huron.....                                 | 1898 |
| Lowe, Vincent A., Benton Harbor.....                                 | 1898 |

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|-----------------------------------------------------------------|------|
| Luce, Jr., W. O., Caro.....                                     | 1885 |
| Lyman, Dr. M. R., Gagetown.....                                 | 1891 |
| Lyon, L. W., 722 St. Aubin Ave., Detroit.....                   | 1895 |
| Lyons, Dr. A. B., 72 Brainard St., Detroit.....                 | 1898 |
| Martin, E. C., Capac.....                                       | 1897 |
| McCullough, Edward P., care Stevens & Todd, Detroit.....        | 1890 |
| McDonald, D., 177 E. Main St., Kalamazoo.....                   | 1884 |
| McDonald, George, Kalamazoo.....                                | 1883 |
| McFarland, A., Greenwood and Reed Place, Detroit.....           | 1883 |
| McGee, Thomas H., Farmington.....                               | 1891 |
| McKenna, J. D., Shepherd.....                                   | 1884 |
| McKevitt, H. D., Ishpeming.....                                 | 1895 |
| McKibbin, R. S., 322 Fort St. W., Detroit.....                  | 1888 |
| McMullen, G. H., Ionia.....                                     | 1883 |
| Main, James I., Tekonsha, Calhoun Co.....                       | 1895 |
| Mann, Charles F., 845 Third Ave., Detroit.....                  | 1888 |
| Martin, A. F., Imlay City.....                                  | 1884 |
| Martin, Susie A., Holland.....                                  | 1885 |
| Mason, C. A., Flint.....                                        | 1885 |
| Mason, J. F., Warren.....                                       | 1888 |
| Matthews, Geo. M., 6th and Broadway Sts., Grand Rapids.....     | 1891 |
| Maxson, M. M., Hudson.....                                      | 1885 |
| Meseroll, D. C., 154 Main St., Jackson.....                     | 1884 |
| Mesick, H. J., Plainwell.....                                   | 1886 |
| Miller, H. J., Vassar.....                                      | 1885 |
| Millikin, T. J., St. Clair.....                                 | 1884 |
| Millsbaugh, Martin Benedict, 98 N. Union St., Grand Rapids..... | 1890 |
| Morris, H. M., 919 Grand River Ave., Detroit.....               | 1888 |
| Morrish, N. D., Sault Ste. Marie.....                           | 1895 |
| Muir, J. D., Grand Rapids.....                                  | 1886 |
| Maurer, Carl L., Cadillac.....                                  | 1895 |
| Nasmyth, P. F., cor. Baker and 18th Sts., Detroit.....          | 1888 |
| Nelson, E. H., Nelson, Baker & Co.....                          | 1884 |
| Nugent, W. A., Bay Mills.....                                   | 1891 |
| Parker, A. S., 749 Woodward Ave., Detroit.....                  | 1883 |
| Parkill, S. E., Owosso.....                                     | 1883 |
| Passage, J. H., Greenville.....                                 | 1886 |
| Pasternacki, Charles L., 779 Hastings St., Detroit.....         | 1895 |
| Patenaude, A., Norway.....                                      | 1887 |
| Paton, David W., Almont.....                                    | 1898 |
| Patterson, B. M., 238 Randolph St., Detroit.....                | 1885 |
| Pauly, L., 84 Canal St., Grand Rapids.....                      | 1898 |
| Peck, J. E., Grand Rapids.....                                  | 1885 |
| Packham, H. C., Freeport.....                                   | 1885 |
| Pegg, H. D., Morenci.....                                       | 1884 |
| Perham, J. T., Kent City.....                                   | 1888 |
| Perry, F. W. R., 709 Woodward Ave., Detroit.....                | 1883 |
| Pettitt, Charles E., Sand Beach.....                            | 1890 |
| Phillips, E. F., Armada.....                                    | 1883 |
| Phillips, F. S., Ogden.....                                     | 1894 |
| Power, J. O., Addison.....                                      | 1884 |
| Prall, D. E., Saginaw.....                                      | 1883 |
| Pratt, G. O., 720 St. Antoine St., Detroit.....                 | 1884 |
| Prescott, A. B., Ann Arbor.....                                 | 1883 |
| Prosser, H. H., Flushing.....                                   | 1895 |

|                                                           |      |
|-----------------------------------------------------------|------|
| Purvis, G. S., 983 Jefferson Ave., Detroit.....           | 1885 |
| Putnam, Arthur S., Manistique.....                        | 1898 |
| Ray, G. C., West Bay City.....                            | 1885 |
| Reidy, Mike, Corunna.....                                 | 1884 |
| Remus, William J., 208 Clinton St., Grand Rapids.....     | 1892 |
| Reynolds, Linton E., St. Joseph.....                      | 1890 |
| Rheinfrank, J. P., Detroit.....                           | 1894 |
| Richmond, Dr. T. W., Bear Lake.....                       | 1888 |
| Richter, Louis J., Saginaw, W. S.....                     | 1895 |
| Riggs, Miles E., Oheboygan.....                           | 1891 |
| Ripley, L. G., Montague.....                              | 1884 |
| Rodenbaugh, H. W., Breedsville.....                       | 1887 |
| Rodenbaugh, I. N., Mancelona.....                         | 1886 |
| Rodgers, E. J., Port Huron.....                           | 1884 |
| Rogers, A., Ravenna.....                                  | 1888 |
| Roscoe, Fred, 916 Water St., Bay City.....                | 1894 |
| Rudolph, A. E., Dowagiac.....                             | 1886 |
| Runner, J. W., Shelby.....                                | 1886 |
| Russell, Dorian M., 84 Canal St., Grand Rapids.....       | 1892 |
| Russell, Ellsworth E., Jackson.....                       | 1890 |
| Sackett, S. M., Monroe.....                               | 1883 |
| Schlotterbeck, Julius O., Ann Arbor.....                  | 1890 |
| Schmidt, Walter Karl, 84 Canal St., Grand Rapids.....     | 1892 |
| Schrouder, Benj., 200 E. Bridge St., Grand Rapids.....    | 1892 |
| Schultz, L. S., St. Joseph.....                           | 1885 |
| Schumacher, A. C., Ann Arbor.....                         | 1887 |
| Schumaker, A. B., Grand Ledge.....                        | 1884 |
| Shaffer, John M., Gladwin.....                            | 1889 |
| Sharrard, Geo. S., Port Huron.....                        | 1898 |
| Sherrard, Charles C. (Ph. C.), 121 20th St., Detroit..... | 1892 |
| Sherwood, C. L., Dowagiac.....                            | 1884 |
| Siebert, G. F., Iron Mountain.....                        | 1883 |
| Sigler, F. A., Pinckney.....                              | 1885 |
| Smith, Charles M., Pontiac.....                           | 1898 |
| Smith, Fletcher, S. Saginaw, W. S.....                    | 1883 |
| Smith, John W., Benton Harbor.....                        | 1898 |
| Smith, Samuel R., 225 S. Division St., Grand Rapids.....  | 1892 |
| Smith, Sydney S., Carrollton.....                         | 1898 |
| Sourwine, John J., Escanaba.....                          | 1897 |
| Spayde, W. H., Bloomingdale.....                          | 1886 |
| Speckhard, Adolphus O., Watersmeet.....                   | 1891 |
| Spenser, J. L., Linden.....                               | 1883 |
| Spenser, M. Ella, Linden.....                             | 1884 |
| Sprague, W. G., Flushing.....                             | 1883 |
| Spring, Herman G., Unionville.....                        | 1898 |
| Spinning, J. Frank, 105 N. Washington Ave., Lansing.....  | 1897 |
| Stafford, E. O., Marquette.....                           | 1898 |
| Stafford, Joseph, Newberry.....                           | 1890 |
| Stanton, H. N., Sidnaw.....                               | 1885 |
| Stearns, Frederick K., Detroit.....                       | 1891 |
| Stephens, Walter E., 1245 State St., Chicago, Ill.....    | 1898 |
| Stevens, A. B., Ann Arbor.....                            | 1883 |
| Stevens, F. D., 133 Woodward Ave., Detroit.....           | 1883 |
| Stone, C. G., 102 Summit Ave., Mt. Vernon, N. Y.....      | 1884 |
| Stover, H. E., Kalkaska.....                              | 1886 |

|                                                              |      |
|--------------------------------------------------------------|------|
| Stringer, G. W., 808 Michigan Ave., Detroit.....             | 1884 |
| Summers, J. W. F., Gould City.....                           | 1892 |
| Swaby, G. A., 401 Center Ave., Bay City.....                 | 1885 |
| Swift, George, 34 W. Congress St., Detroit.....              | 1883 |
| Taber, Roland B., Benton Harbor.....                         | 1898 |
| Taylor, Mrs. C. W., Loomis.....                              | 1885 |
| Taylor, H. S., 54 Selden Ave., Detroit.....                  | 1889 |
| Thompson, Frank A., Detroit.....                             | 1880 |
| Thum, Hugo, Grand Rapids.....                                | 1884 |
| Todd, A. M., Kalamazoo.....                                  | 1887 |
| Travis, W. B., Belding.....                                  | 1898 |
| Todd, Fred. J., Detroit.....                                 | 1896 |
| Tupper, F. L., Salzburg.....                                 | 1845 |
| Turner, Dr. R., Flat Rock.....                               | 1896 |
| Tuttle, W. A., 115 Woodward Ave., Detroit.....               | 1883 |
| Upson, Eugene S., Durand.....                                | 1896 |
| Vandecar, J. H., North Branch.....                           | 1883 |
| Van Marter, Ezra J., 155 W. Main St., Jackson.....           | 1884 |
| Van Vranken, G. D., Cadillac.....                            | 1886 |
| Varnum, E. C., Jonesville.....                               | 1884 |
| Varnum, G. C., Jonesville.....                               | 1884 |
| Vaughan, B. D., 219 Superior St., Albion.....                | 1884 |
| Vernor, James, 33 Woodward Ave., Detroit.....                | 1884 |
| Von Walthausen, Werner, 1345 Johnson St., Bay City.....      | 1884 |
| Walte, S. E., Traverse City.....                             | 1884 |
| Walker, A. L., 411 Woodward Ave., Detroit.....               | 1888 |
| Walker, J. David, Saginaw, E. S.....                         | 1891 |
| Walsh, Heber, 63 E. Eighth St., Holland.....                 | 1885 |
| Ward, G. J., St. Clair.....                                  | 1884 |
| Warren, W. M., with Parke, Davis & Co., Detroit.....         | 1888 |
| Webb, B. S., Alma.....                                       | 1886 |
| Webb, E. T., Jackson.....                                    | 1885 |
| Webber, A. H., Cadillac.....                                 | 1884 |
| Weeks, James E., Battle Creek.....                           | 1880 |
| Weinmann, Frederick, 202 N. Washington Ave., Lansing....     | 1897 |
| Weiss, J., Monroe.....                                       | 1888 |
| Wellman, Bert E., Armada.....                                | 1894 |
| Wendover, W. V., 1473 Woodward Ave., Detroit.....            | 1895 |
| West, Ben. E., Grand Rapids.....                             | 1898 |
| Westervelt, F. E., Hotel Vendome, Grand Rapids.....          | 1896 |
| Wetzel, H. A., 902 Jefferson Ave., Detroit.....              | 1888 |
| Whipple, G. N., 222 Orleans St., Detroit.....                | 1885 |
| Wicks, Frank E., 317 Meldrum Ave., Detroit.....              | 1898 |
| Wilber, C. H., St. Ignace.....                               | 1887 |
| Wilders, A. J., Ortonville.....                              | 1885 |
| Williams, Frederick J., Lansing.....                         | 1898 |
| Williams, R. P., care Farrand, Williams & Clark, Detroit.... | 1888 |
| Williams, W. C., Michigan Drug Co., Detroit.....             | 1884 |
| Williamson, John, Detroit.....                               | 1884 |
| Winegar, Willard S., Lowell.....                             | 1892 |
| Witherspoon, P. E., Benton Harbor.....                       | 1885 |
| Wollinger, C. E., Hopkins Station.....                       | 1884 |
| Wood, Will H., Sheridan.....                                 | 1887 |
| Woods, C. H., 524 Grand River Ave., Detroit.....             | 1898 |

|                                              |      |
|----------------------------------------------|------|
| Wright, Charles, W. Larned St., Detroit..... | 1883 |
| Wright, C. A., Tecumseh.....                 | 1884 |
| Yeomans, E. T., Ionia.....                   | 1883 |
| Young, Geo. O., Lansing.....                 | 1897 |

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HONORARY MEMBERS.

|                                                                          |              |
|--------------------------------------------------------------------------|--------------|
| Duffield, S. P., Ph., M. D., Detroit.....                                | Elected 1887 |
| Englehard, G. P., Chicago, Ill.....                                      | " 1883       |
| Stowell, Mrs. L. R., M. D., Washington, D. C.....                        | " 1887       |
| Vaughan, V. C., Ph. D., M. D., Ann Arbor.....                            | " 1887       |
| Wrampelmeler, T. J., Ph. C., San Diego, Cal.....                         | " 1887       |
| Wells, Frank, Lansing.....                                               | " 1890       |
| Hoffman, Fr., Ph. D., Berlin, Charlotten Kant Str.<br>125, Germany ..... | " 1893       |
| Jesson, Jacob, Anaheim, Cal.....                                         | " 1894       |

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RESIGNED.

|               |                |                 |
|---------------|----------------|-----------------|
| Geo. S. Davis | W. F. Griffith | Dr. Jas. Raizon |
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DROPPED FOR NON-PAYMENT OF DUES AND BY REQUEST.

|                    |                  |
|--------------------|------------------|
| Isaac Amberg       | S. B. Clark      |
| Chas. Allmendinger | Shelden Colman   |
| John Babbington    | P. A. Dewitt     |
| M. A. Barber       | I. LeR. H. Dodds |
| W. H. Bigelow      | Chas. Dorman     |
| C. A. Blair        | F. W. Dorr       |
| L. G. Blakeslee    | W. L. Dunbar     |
| E. S. Botsford     | H. B. Fairchild  |
| J. E. Bower        | F. W. Fincher    |
| F. E. Brackett     | C. A. Fisk       |
| A. P. Breitenbach  | C. S. French     |
| D. D. Brown        | J. C. Furniss    |
| L. W. Bliss        | E. L. Forsythe   |
| E. T. Boden        | C. B. Fuqua      |
| R. T. Bower        | H. L. Gladwin    |
| M. S. Carney       | D. O. Roberts    |
| G. T. Chamberlain  | O. W. Roeser     |
| W. C. Claxton      | F. B. Raynale    |
| I. F. Conrad       | J. W. Rothacher  |
| I. S. Cooper       | O. P. Safford    |
| A. A. Currie       | E. G. Gleason    |
| C. A. Curtis       | G. S. Goldsmith  |
| Aaron Cornell      | Wm. Grossman     |

|                  |                   |
|------------------|-------------------|
| Grant G. Gardner | A. A. Schott      |
| G. I. Haeussler  | D. L. Shook       |
| W. A. Hall       | C. A. Seely       |
| G. M. Harwood    | E. E. Sloan       |
| F. A. Hodges     | F. Steinkohl      |
| I. F. Hopkins    | B. F. Sweet       |
| R. J. Hutton     | F. E. Sweatser    |
| J. H. Hubert     | R. W. Sellick     |
| C. V. Hicks      | H. J. Scott       |
| A. P. Hart       | J. W. Steiner     |
| J. D. Hamilton   | L. Simoneau       |
| Frank Inglis     | R. Simoneau       |
| F. H. Kelly      | F. D. Simpson     |
| C. S. Koon       | C. E. Smith       |
| J. J. Lacroix    | Frank W. Smith    |
| G. D. McKimmie   | L. Stoeckly       |
| F. W. Mayer      | B. E. Tilton      |
| D. T. McDonald   | W. A. Tomlinson   |
| J. E. McEvoy     | A. B. Treat       |
| A. T. Millen     | C. C. Tubbs       |
| L. G. Moore      | F. A. Teporten    |
| C. P. Newell     | A. E. Tomlinson   |
| Mrs. W. H. Niver | R. Van Bachove    |
| H. Martin        | E. H. Vedder      |
| J. J. Orr        | W. H. Vaughn      |
| G. A. Osborne    | A. Velch          |
| Dr. H. Palmer    | E. T. Van Ostrand |
| O. J. Parker     | C. E. Van Sickle  |
| L. Pauly         | W. K. Walker      |
| D. B. Perry      | F. E. Warne       |
| L. A. Phelps     | J. B. Watson      |
| H. S. Phillips   | H. G. Watz        |
| W. R. Phillips   | H. J. Webb        |
| L. R. Pierson    | C. A. Wells       |
| N. Pike          | F. C. Wilkins     |
| A. H. Powell     | G. A. Witherspoon |
| G. A. Price      | W. A. Woods       |
| R. J. Sawyer     | F. J. Wurzburg    |

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**Died.**

|               |                   |
|---------------|-------------------|
| T. B. Kennedy | Chalmers P. Allen |
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## Michigan State Board of Pharmacy.

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F. W. R. PERRY, Detroit.....Term expires Dec. 31, 1898  
A. C. SCHUMACHER, Ann Arbor.....Term expires Dec. 31, 1899  
GEO. GUNDRUM, Ionia.....Term expires Dec. 31, 1900  
L. E. REYNOLDS, St. Joseph.....Term expires Dec. 31, 1901  
HENRY HEIM, Saginaw, E. S.....Term expires Dec. 31, 1902

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### OFFICERS OF BOARD.

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GEO. GUNDRUM, Ionia.....President  
A. C. SCHUMACHER, Ann Arbor.....Secretary  
HENRY HEIM, Saginaw, E. S.....Treasurer

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### EXAMINATION SESSIONS OF BOARD.

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Marquette, Aug. 29-30, 1898.  
Lansing, Nov. 1-2, 1898.  
Detroit, Jan. 1899.  
Grand Rapids, Mar. 1899.  
Star Island, July, 1899.

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Address all communications to the Secretary,  
A. C. SCHUMACHER, Ann Arbor, Mich.

## THE PHARMACY LAW.

### AN ACT

To Regulate the Practice of Pharmacy in the State of Michigan.  
Act No. 134, Laws of 1885:

Section 1. The People of the State of Michigan enact, That the Governor, with the advice and consent of the Senate, shall, within thirty days after the passage of this act, appoint five persons and annually thereafter one person from among such competent pharmacists in the State as have had ten years' practical experience in dispensing physicians' prescriptions, who shall constitute the Michigan Board of Pharmacy. The term of office of said five persons shall be so arranged that the term of one shall expire on the thirty-first day of December of each year, and all appointments made thereafter shall be for the term of five years.

Sec. 2. The said board shall, within thirty days after its appointment, meet, and organize, by election of a President and Secretary, from its own members, who shall be elected for the term of one year, and shall perform the duties prescribed by the board. It shall be the duty of the board to examine all applications for registration submitted in proper form; to grant certificates of registration to such persons as may be entitled to the same under the provisions of this act; to investigate complaints and to cause the prosecution of all persons violating its provisions; to report annually to the Governor and to the Michigan Pharmaceutical Association upon the condition of pharmacy in the State, which said report shall also furnish a record of the proceedings of the said board for the year, and also names of all pharmacists duly registered under this act; the board shall hold meetings for the examination of applicants for registration, and the transaction of such other business as shall pertain to its duties, at least once in four months, said meetings to be held on the first Tuesdays of March, July and November in each year; shall make By-laws for the proper fulfillment of its duties under this act, and shall keep a book of registration in which shall be entered the names and places of business of all persons registered under this act, which book shall also specify such facts as said persons shall claim to justify their registration. The records of said board, or a copy of any part thereof, certified by the Secretary to be a true copy, attested by the seal of the board, shall be accepted as competent evidence in all courts of the State. Three members of said board shall constitute a quorum.

Sec. 3. The Secretary of the board and the Treasurer thereof, if such separate office be created, shall receive a salary which shall be fixed by the board; they shall also receive the amount of their traveling and other expenses incurred in the performance of their official duties. The other members shall receive the sum of three dollars for each day actually engaged in this service, and all legitimate and necessary expenses incurred in the performance of their official duties. Said salaries, per diem, and

expenses, shall be paid from the fees received under the provisions of this act. All moneys received in excess of said per diem allowance, and all other expenses above provided for, shall be paid into the State treasury at the end of each year, and so much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof, if, in any year, the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the Board of State Auditors and to the Michigan Pharmaceutical Association, of all moneys received and disbursed by it pursuant to this act.

Sec. 4. Every person who shall within three months after this act takes effect, forward the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, at the time this act takes effect, in the preparation of physicians' prescriptions, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist: Provided, That in case of failure or neglect to register as herein provided, then such person shall, in order to be registered, comply with the requirements provided for registration as a licentiate in pharmacy hereinafter described.

Sec. 5. No person other than a licentiate in pharmacy shall be entitled to registration as a pharmacist, except as provided in Section Four. Licentiates in pharmacy shall be such persons, not less than eighteen years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the board a fee of three dollars: Provided, That in case of a failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within one year. The said board may grant certificates or registration without further examination to the licentiates of such other boards of pharmacy as it may deem proper upon a payment of a fee of two dollars.

Sec. 6. The said board may grant, under such rules and regulations as it may deem proper, at a fee not exceeding one dollar, the certificate of registered assistant to clerks or assistants in pharmacy not less than eighteen years of age, who at the time this act takes effect, shall be engaged in such service in this State, and have been employed or engaged two years or more in the practice of pharmacy; but such certificate shall not entitle the holder to engage in such business on his own account, or to take charge of, or act as manager of, a pharmacy or drug store.

Sec. 7. Each registered pharmacist, or registered assistant, who desires to continue the practice of his profession shall annually, after the expiration of the first year of his resignation, during the time he shall continue in such practice, on such date

THE PHARMACY LAW.

AN ACT

To Regulate the Practice of Pharmacy in the State of Michigan.  
Act No. 134, Laws of 1885:

Section 1. The People of the State of Michigan enact, That the Governor, with the advice and consent of the Senate, shall, within thirty days after the passage of this act, appoint five persons and annually thereafter one person from among such competent pharmacists in the State as have had ten years' practical experience in dispensing physicians' prescriptions, who shall constitute the Michigan Board of Pharmacy. The term of office of said five persons shall be so arranged that the term of one shall expire on the thirty-first day of December of each year, and all appointments made thereafter shall be for the term of five years.

Sec. 2. The said board shall, within thirty days after its appointment, meet, and organize, by election of a President and Secretary, from its own members, who shall be elected for the term of one year, and shall perform the duties prescribed by the board. It shall be the duty of the board to examine all applications for registration submitted in proper form; to grant certificates of registration to such persons as may be entitled to the same under the provisions of this act; to investigate complaints and to cause the prosecution of all persons violating its provisions; to report annually to the Governor and to the Michigan Pharmaceutical Association upon the condition of pharmacy in the State, which said report shall also furnish a record of the proceedings of the said board for the year, and also names of all pharmacists duly registered under this act; the board shall hold meetings for the examination of applicants for registration, and the transaction of such other business as shall pertain to its duties, at least once in four months, said meetings to be held on the first Tuesdays of March, July and November in each year; shall make By-laws for the proper fulfillment of its duties under this act, and shall keep a book of registration in which shall be entered the names and places of business of all persons registered under this act, which book shall also specify such facts as said persons shall claim to justify their registration. The records of said board, or a copy of any part thereof, certified by the Secretary to be a true copy, attested by the seal of the board, shall be accepted as competent evidence in all courts of the State. Three members of said board shall constitute a quorum.

Sec. 3. The Secretary of the board and the Treasurer thereof, if such separate office be created, shall receive a salary which shall be fixed by the board; they shall also receive the amount of their traveling and other expenses incurred in the performance of their official duties. The other members shall receive the sum of three dollars for each day actually engaged in this service, and all legitimate and necessary expenses incurred in the performance of their official duties. Said salaries, per diem, and

expenses, shall be paid from the fees received under the provisions of this act. All moneys received in excess of said per diem allowance, and all other expenses above provided for, shall be paid into the State treasury at the end of each year, and so much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof, if, in any year, the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the Board of State Auditors and to the Michigan Pharmaceutical Association, of all moneys received and disbursed by it pursuant to this act.

Sec. 4. Every person who shall within three months after this act takes effect, forward the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, at the time this act takes effect, in the preparation of physicians' prescriptions, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist: Provided, That in case of failure or neglect to register as herein provided, then such person shall, in order to be registered, comply with the requirements provided for registration as a licentiate in pharmacy hereinafter described.

Sec. 5. No person other than a licentiate in pharmacy shall be entitled to registration as a pharmacist, except as provided in Section Four. Licentiate in pharmacy shall be such persons, not less than eighteen years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the board a fee of three dollars: Provided, That in case of a failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within one year. The said board may grant certificates or registration without further examination to the licentiates of such other boards of pharmacy as it may deem proper upon a payment of a fee of two dollars.

Sec. 6. The said board may grant, under such rules and regulations as it may deem proper, at a fee not exceeding one dollar, the certificate of registered assistant to clerks or assistants in pharmacy not less than eighteen years of age, who at the time this act takes effect, shall be engaged in such service in this State, and have been employed or engaged two years or more in the practice of pharmacy; but such certificate shall not entitle the holder to engage in such business on his own account, or to take charge of, or act as manager of, a pharmacy or drug store.

Sec. 7. Each registered pharmacist, or registered assistant, who desires to continue the practice of his profession shall annually, after the expiration of the first year of his resignation, during the time he shall continue in such practice, on such date

as the board of pharmacy may determine, pay to the said board a registration fee to be fixed by the board, but which shall not exceed one dollar for a pharmacist, or fifty cents for an assistant, for which he shall receive a renewal of said registration. Every person receiving a certificate under this act shall keep the same conspicuously exposed in his place of business. Every registered pharmacist, or assistant, shall, within ten days after changing his place of business or employment, as designated by his certificate, notify the Secretary of the board of his new place of business. If any pharmacist or registered assistant shall fail or neglect to procure his annual registration, or to comply with the other provisions of this section, his right to act as such pharmacist or assistant shall cease at the expiration of ten days from the time notice of such failure to comply with the provisions of this section shall have been mailed to him by the Secretary of said board.

Sec. 8. All or any registration obtained through false representations shall be void, and the board of pharmacy may hear complaints and evidence, and may revoke such certificates as it may deem improperly held.

Sec. 9. Any proprietor of a pharmacy who, not being a registered pharmacist, shall, ninety days after this act takes effect, fail or neglect to place in charge of such pharmacy a registered pharmacist; or any such proprietor who shall by himself, or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines, or poisons, in his store or place of business except by, or in the presence and under the supervision of, a registered pharmacist, or except by a registered assistant; or any person not being a registered pharmacist who shall take charge of, or act as manager of, such pharmacy or store, or who, not being a registered pharmacist or registered assistant, shall retail, compound, or dispense drugs, medicines, or poisons; or any person violating any other provision of this act to which no other penalty is herein attached, shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than ten nor more than one hundred dollars, and in default of payment thereof, shall be imprisoned not less than ten days nor more than ninety days, or both, such fine and imprisonment in the discretion of the court.

Sec. 10. Nothing in this act shall apply to, or in any manner interfere with, the business of any practicing physician who does not keep open shop for retailing, dispensing, or compounding of medicines and poisons, or prevent him from supplying to his patient such articles as may seem to him proper; nor to the vending of patent or proprietary medicines by any retail dealer who has been in such business three years or more; nor to the selling by any person of drugs, medicines, chemicals, essential oils, and tinctures which are put up in bottles, boxes or packages, bearing labels securely affixed, which labels shall bear the name of the pharmacist or druggist putting up the same, the dose that may be administered to persons three months, six months, one year, three years, five years, ten years, fifteen years,

and twenty-one years of age, and, if a poison, the name or names of the most common antidotes: of copperas, borax, blue vitriol, saltpetre, pepper, sulphur, brimstone, paris green, licorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, glycerine, Glauber Salts, epsom salts, cream tartar, bi-carbonate of soda, sugar of lead, and such acids as are used in coloring and tanning; nor to the selling of paregoric, essence of peppermint, essence of ginger, essence of cinnamon, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits of camphor, number six, sweet spirits of nitre, laudanum, quinine and all other preparations of cinchona bark, tincture of aconite, and tincture of iron, compound cathartic pills, or quinine pills, nor to the exclusively wholesale business of any dealer; Provided, That every person who shall within three months after this act takes effect forward to the board of pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, in the preparation of physicians' prescriptions, three years next previous to the second day of June, 1885, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist. And provided further, That the said board may grant, at a fee not exceeding one dollar, to such person not less than sixteen years of age who shall pass a satisfactory examination touching his competency before the board of pharmacy, the certificate of registered "assistant," but such certificate shall not entitle the holder to engage in business on his own account or to take charge of, or act as manager of a pharmacy or drug store.

Sec. 11. No person shall add to or remove from any drug, medicine, chemical, or pharmaceutical preparation, any ingredient or material, for the purpose of adulteration or substitution, which shall deteriorate the quality, commercial value, or medicinal effect, or which shall alter the nature or composition of such drug, medicine, chemical, or pharmaceutical preparation, so that it will not correspond to the recognized tests of identity or purity. Any person who shall thus wilfully adulterate or alter, or cause to be adulterated or altered, or shall sell or offer for sale, any such drugs, medicine, chemical, or pharmaceutical preparation, or any person who shall substitute or cause to be substituted, one material for another, with the intention to defraud or deceive the purchaser, shall be guilty of a misdemeanor, and be liable to prosecution under this act. If convicted, he shall be liable to all the costs of the action, and for the first offense be liable to a fine of not less than ten dollars nor more than one hundred dollars, and for each subsequent offense a fine of not less than twenty-five dollars nor more than one hundred and fifty dollars. On complaint being entered, the Board of Pharmacy is hereby empowered to employ an analyst or chemist, whose duty it shall be to examine into the so-called adulteration, substitution or alteration, and report upon the result of his investigation; and if said report shall be deemed to justify such action, the Board

150      *Proceedings of the Sixteenth Annual Meeting*

shall duly cause the prosecution of the offender, as provided in this act.

Sec. 12. The senior pharmacist of every house dispensing and compounding medicines, registered under this act, shall be exempt ~~and free from all jury duty in the courts of this State.~~

Sec. 13. All acts and parts of acts in conflict with the provisions of this act are hereby repealed.

Approved June 2, 1885.



**See that it looks like this.**



# **TANGLEFOOT**

## **SEALED STICKY FLY PAPER.**

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**One of the most profitable things you sell.**

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THE principal requirement of sticky fly paper is stability, while in your stock as well as after it is opened for use.

Stability, Tanglefoot possesses in the highest degree; constant and well directed experimenting have developed a paper very nearly perfect and not approached by anything in the line.

Sell Tanglefoot and you will know that you are supplying the latest ideas and improvements as soon as they are out.

*Gentlemen of the Drug Trade:*

We wish to thank the trade, both wholesale and retail, for the loyal and honorable manner in which you have supplied your customers with the Castoria they have been familiar with for over thirty years; the kind they have learned to know through your assistance and the expenditure of hundreds of thousands of dollars by us.

We appreciate your refusal to countenance the substitutes and counterfeits that have been put on the market from New York to San Francisco since the beginning of our two years' litigation—a litigation that will, and we are determined must, result in our technical as well as moral right to the exclusive use of our trade mark.

Any advertising matter, such as counter wrappers, cartons and show cards, that you may desire, will be sent to you prepaid on receipt of request for same.

Again thanking you, and with the assurance that we will ever aim to merit a continuance of your confidence, we beg to remain,

Yours very respectfully,

THE CENTAUR COMPANY,



President.

---

**NO ADVANCE IN PRICES.**

**\$33.60 PER GROSS.**

**\$2.80 PER DOZEN.**

Jobbers sell in Gross Lots 5% and 2½% off.

**The Kind you have always Handled.**

# PURE **C**HEMICALS

Among the large number of pure, medicinal chemicals we manufacture, we call your attention particularly to the following:

**Carbolic Acid, Gilt Label** Hard crystals, remaining white, free from tarry matter, a superior article for dispensing purposes.

**Bismuth Subnitrate** Very white, bulky powder, free from Arsenic, Lead, Antimony and other contaminations.

**Choloroform and Ether** Carefully prepared for inhalation and absolutely pure.

**Cocaine Hydrochlorate** In handsome, well defined crystals, unsurpassed for purity and appearance.

**Hydrogen Dioxide** Prepared in accordance with the U. S. Pharmacopœia, and unsurpassed for purity, strength and keeping qualities.

**Sodium Salicylate** In the form of small *chemically pure crystals* entirely neutral and dissolving perfectly.

*Chemically Pure Acids, Iodides, Bromides, Pure Granulated Salts, Calomel, Corrosive Sublimate, and other Mercurials, Ether, etc.*

WE are endeavoring to excel in the purity of all of our products, and careful pharmacists are requested to satisfy themselves of the superior quality of "Mallinckrodt's" chemicals by a critical examination and comparison with other makes.

All jobbing drug houses can supply our chemicals as low as those of any reliable manufacturer, and we ask the support of pharmacists by specifying "Mallinckrodt's" when ordering, and allowing no substitution of other brands.

**MALLINCKRODT CHEMICAL WORKS,**  
ST. LOUIS, MO.

**Flor**  
**de Fuller**  
**Cigars.**



*Justly Famed.*

In lots of 3000, \$33 per M.  
In lots of 1000, \$34 per M.  
Less Quantity, \$35 per M.

Mail Orders receive our prompt and careful attention.

*The Highest  
Standard of  
Excellence..*



**Fuller & Fuller Company,**  
CHICAGO.

IMPORTERS AND  
WHOLESALE DRUGGISTS,

FOUNDED A. D. 1818

# POWERS & WEIGHTMAN, MANUFACTURING CHEMISTS, Philadelphia.

 NEW YORK OFFICE, 56 MAIDEN LANE. 

**QUININE**

AND ALL ITS SALTS.

**MORPHINE**

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**STRICTLY OF OUR OWN MANUFACTURE.**

FULL LINE OF **CHEMICALS** FOR USE IN

**MEDICINE,  
PHOTOGRAPHY  
AND THE ARTS.**

**SOLD IN WHOLESALE QUANTITIES ONLY.**

In Ordering Chemicals from your Jobber, insist upon  
having **POWERS & WEIGHTMAN'S**

## GLOBULES OF SANTAL (OIL P., D. & CO.)

are far superior to the imported article;  
also to the pearls, capsoids, etc., etc., found  
upon the market.



Our product is  
far superior; for the  
simple reason that  
we do not buy the  
oil,—it being next  
to impossible to  
purchase an abso-  
lutely pure Oil of  
Santal,—BUT IM-  
PORT THE SAN-  
DALWOOD AND  
DISTIL THE OIL  
IN OUR OWN  
LABORATORY.



In bottles of 50, per doz. bottles, \$5.00.



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*Home Offices and Laboratories, DETROIT, MICHIGAN,  
Branches in New York, Kansas City, Baltimore, New Orleans*

# FREDERICK F. INGRAM & Co.

WING'S  
PERFUMES

*Elxirs.  
Fluid Extracts,  
Pharmaceutical Specialties,  
Reliable Domestic Remedies,  
Private Formulæ Prepared,  
Wing's Quadruple Extracts,  
Toilet Goods, etc.*



**Perfumers,  
Manufacturing  
Pharmacists.**

DETROIT, MICH.

## GIVE PECKHAM'S Croup Remedy

(The Children's Cough Cure) for Colds,  
Coughs, Croup, Whooping Cough. PLEASANT,  
SAFE. CERTAIN. Ask your Druggist about it.

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**NO ADVANCE IN PRICE  
WE PAY THE TAX.**

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**\$2.00 per dozen.  
3 doz. order less 5 per cent.  
6 doz. order less 10 per cent.**

میرا

**Attractive Advertising with Imprint**  
sent free on receipt of label. Specialties of  
your own manufacture mentioned if re-  
quested. Include Peckham's Croup Remedy  
in first order to your jobber and write  
for advertising to PECKHAM'S CROUP  
REMEDY CO., Freeport, Mich. Your orders  
solicited by all wholesale druggists.

HIGH GRADE

## Prescription Corks

Sold under the name of



ARE GUARANTEED

in every particular by the manufacturers and  
recommended by the Association.

*Wherever sickness exists • •  
there is always a market for*

**DR. D. JAYNE'S ..**  
❖ **Family Medicines**



*Jayne's Expectorant.*

*Jayne's Alterative.*

*Jayne's Tonic Vermifuge.*

*Jayne's Carminative Balsam.*

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*Jayne's Sanative Pills.*

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*Jayne's Hair Tonic.*

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*Prepared only by DR. D. JAYNE & SON, PHILADELPHIA*

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**For Sale by Druggists Everywhere.**

as the board of pharmacy may determine, pay to the said board a registration fee to be fixed by the board, but which shall not exceed one dollar for a pharmacist, or fifty cents for an assistant, for which he shall receive a renewal of said registration. Every person receiving a certificate under this act shall keep the same conspicuously exposed in his place of business. Every registered pharmacist, or assistant, shall, within ten days after changing his place of business or employment, as designated by his certificate, notify the Secretary of the board of his new place of business. If any pharmacist or registered assistant shall fail or neglect to procure his annual registration, or to comply with the other provisions of this section, his right to act as such pharmacist or assistant shall cease at the expiration of ten days from the time notice of such failure to comply with the provisions of this section shall have been mailed to him by the Secretary of said board.

Sec. 8. All or any registration obtained through false representations shall be void, and the board of pharmacy may hear complaints and evidence, and may revoke such certificates as it may deem improperly held.

Sec. 9. Any proprietor of a pharmacy who, not being a registered pharmacist, shall, ninety days after this act takes effect, fail or neglect to place in charge of such pharmacy a registered pharmacist; or any such proprietor who shall by himself, or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines, or poisons, in his store or place of business except by, or in the presence and under the supervision of, a registered pharmacist, or except by a registered assistant; or any person not being a registered pharmacist who shall take charge of, or act as manager of, such pharmacy or store, or who, not being a registered pharmacist or registered assistant, shall retail, compound, or dispense drugs, medicines, or poisons; or any person violating any other provision of this act to which no other penalty is herein attached, shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than ten nor more than one hundred dollars, and in default of payment thereof, shall be imprisoned not less than ten days nor more than ninety days, or both, such fine and imprisonment in the discretion of the court.

Sec. 10. Nothing in this act shall apply to, or in any manner interfere with, the business of any practicing physician who does not keep open shop for retailing, dispensing, or compounding of medicines and poisons, or prevent him from supplying to his patient such articles as may seem to him proper; nor to the vending of patent or proprietary medicines by any retail dealer who has been in such business three years or more; nor to the selling by any person of drugs, medicines, chemicals, essential oils, and tinctures which are put up in bottles, boxes or packages, bearing labels securely affixed, which labels shall bear the name of the pharmacist or druggist putting up the same, the dose that may be administered to persons three months, six months, one year, three years, five years, ten years, fifteen years,



and twenty-one years of age, and, if a poison, the name or names of the most common antidotes: of copperas, borax, blue vitriol, saltpetre, pepper, sulphur, brimstone, paris green, licorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, glycerine, Glauber Salts, epsom salts, cream tartar, bi-carbonate of soda, sugar of lead, and such acids as are used in coloring and tanning; nor to the selling of paregoric, essence of peppermint, essence of ginger, essence of cinnamon, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits of camphor, number six, sweet spirits of nitre, laudanum, quinine and all other preparations of cinchona bark, tincture of aconite, and tincture of iron, compound cathartic pills, or quinine pills, nor to the exclusively wholesale business of any dealer; Provided, That every person who shall within three months after this act takes effect forward to the board of pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, in the preparation of physicians' prescriptions, three years next previous to the second day of June, 1885, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist. And provided further, That the said board may grant, at a fee not exceeding one dollar, to such person not less than sixteen years of age who shall pass a satisfactory examination touching his competency before the board of pharmacy, the certificate of registered "assistant," but such certificate shall not entitle the holder to engage in business on his own account or to take charge of, or act as manager of a pharmacy or drug store.

Sec. 11. No person shall add to or remove from any drug, medicine, chemical, or pharmaceutical preparation, any ingredient or material, for the purpose of adulteration or substitution, which shall deteriorate the quality, commercial value, or medicinal effect, or which shall alter the nature or composition of such drug, medicine, chemical, or pharmaceutical preparation, so that it will not correspond to the recognized tests of identity or purity. Any person who shall thus wilfully adulterate or alter, or cause to be adulterated or altered, or shall sell or offer for sale, any such drugs, medicine, chemical, or pharmaceutical preparation, or any person who shall substitute or cause to be substituted, one material for another, with the intention to defraud or deceive the purchaser, shall be guilty of a misdemeanor, and be liable to prosecution under this act. If convicted, he shall be liable to all the costs of the action, and for the first offense be liable to a fine of not less than ten dollars nor more than one hundred dollars, and for each subsequent offense a fine of not less than twenty-five dollars nor more than one hundred and fifty dollars. On complaint being entered, the Board of Pharmacy is hereby empowered to employ an analyst or chemist, whose duty it shall be to examine into the so-called adulteration, substitution or alteration, and report upon the result of his investigation; and if said report shall be deemed to justify such action, the Board

# Duroy Port Wine

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*is the best and purest Port Wine known. Handled exclusively by the retail drug trade. Why not write for samples and compare quality and prices.*

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**THREE ♣ TRADE ♣ WINNING ♣ PERFUMES.**

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**CUBAN ROSES,  
CUBAN LILIES and  
WILDWOOD VIOLET.**

ORDER OF YOUR WHOLESALE DRUGGISTS OR OF

**FOOTE & JENKS,**

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**EL PRINCIPE,  
DE GALES and  
E. H. GATO BOUQUET,**

*All Havana Cigars,*

*—also—*

**CHIEF BATTLE and SMOKETTES,  
5c CIGARS.**



FARRAND, WILLIAMS & CLARK,

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Importers and Wholesale Druggists.

*To the Trade:*

Embracing this present opportunity we desire to assure our friends of our continued appreciation for their favors to us in the past, and of our endeavors to merit a steady continuance of the same. To extend to you a hearty invitation to visit us at any time convenient to yourselves, making our office your headquarters and calling upon us for anything that will tend to make your stay both pleasant and profitable. In this connection we beg to say that our best efforts are continually made along the line of furnishing the very best goods afforded by the markets of the world, steadily ascending the inferior in every line of merchandise we handle. That we have succeeded in our modest way, numbers of our friends readily attest: from those with whom we have not had the pleasure of acquaintance or business relations we ask a trial order. Our stock comprises the best of everything in Drugs, Chemicals, Drug Sundries, Paints, Oils, Etc., Etc.

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**Be Consistent**

*Druggists always pass up the selling trade even  
goods—those whose sale they can control*

**WELL**  
**Pharmacists**  
**Cigar Company's**  
**Cigars**

Are Controlled and  
Sold only by

**Druggists**

We are prepared to supply to all Druggists clean, well  
made, pure tobacco cigars at lower prices than any  
other concern in the market.

WRITE FOR OUR PARTICULARS

**The Pharmacists Cigar Company,**

14 Champlain Street, BOSTON, MASS.



PROCEEDINGS  
OF THE  
THE MICHIGAN STATE  
PHARMACEUTICAL  
ASSOCIATION

1890



PROCEEDINGS OF THE SEVENTEENTH  
ANNUAL MEETING

OF THE

MICHIGAN STATE

Pharmaceutical Association,

HELD AT

JACKSON, AUGUST 15, 16, 17, 1899,

ALSO

CONSTITUTION AND BY-LAWS, AND  
ROLL OF MEMBERSHIP.

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Michigan State Board of Pharmacy  
and Pharmacy Law.

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CHARLES F. MANN, SECRETARY,  
845 THIRD AVENUE,  
DETROIT, MICHIGAN.

## **NOTICES.**

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**Next Place of Meeting, GRAND RAPIDS,  
August 14, 15, 16, 1900.**

**JOHN D. MUIR,**  
**Local Secretary.**

---

## **MEMBERSHIP.**

Extraordinary efforts to increase the membership will be made during the year. One or more members will be appointed in every County for organization. All of our members are urged to give their aid in this work. It is our purpose to give all the strength we can to the National Association of Retail Druggists.

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## **ADVERTISEMENTS.**

We call your attention to the fact, that it is due largely to the kindness of the advertisers that we are able to issue our Proceedings, and we trust our members will appreciate this fact in placing their orders.



## OFFICERS 1899-1900.

### President :

OTTMAR EBERBACH, Ann Arbor.

### Vice-Presidents :

E. J. VAN METER, Jackson.      W. H. BURKE, Detroit.  
A. L. WALKER, Detroit.

### Secretary :

CHARLES F. MANN, Detroit.

### Treasurer :

JOHN S. BENNETT, Lansing.

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## STANDING COMMITTEES, 1899-1900.

### Executive Committee :

W. D. CHURCH, Grand Rapids.      B. SCHROUDER, Grand Rapids.  
A. S. PARKER, Detroit.      E. F. PHILLIPS, Armada.      A. H. WEBBER, Cadillac.

### Trade Interests Committee :

#### FOR 3 YEARS :

F. W. R. PERRY, Detroit.      DR. G. J. WARD, St. Clair.  
E. E. RUSSELL, Jackson.

#### FOR 2 YEARS :

JOHN E. PECK, Grand Rapids.      A. H. WEBBER, Cadillac.

#### FOR 1 YEAR :

E. F. PHILLIPS, Armada.      A. C. SCHUMACHER, Ann Arbor.

### Pharmacy and Queries Committee :

PROF. A. B. PRESCOTT, Ann Arbor.      DR. A. B. LYONS, Detroit.  
D. M. RUSSELL, Detroit.

### Legislation Committee :

A. H. WEBBER, Cadillac.      J. D. MUIR, Grand Rapids.      H. J. BROWN, Ann Arbor.

### Adulteration Committee :

PROF. A. B. STEVENS, Ann Arbor.      C. C. SHERRARD, Detroit.  
J. O. SCHLOTTERBECK, Ann Arbor.

## **DELEGATES.**

### **National Association Retail Druggists:**

A. H. WEBBER, Cadillac.

A. S. PARKER, Detroit.

D. E. PRALL, Saginaw.

### **American Pharmaceutical Association:**

O. EBERBACH, Ann Arbor.

DR. A. B. LYONS, Detroit.

PROF. A. B. STEVENS, Ann Arbor.

PROF. A. B. PRESCOTT, Ann Arbor.

F. E. WESTERVELT, Grand Rapids.

**PROCEEDINGS**  
**OF THE**  
**SEVENTEENTH ANNUAL MEETING**  
**OF THE**  
**Michigan State Pharmaceutical Association,**  
**HELD AT**  
**JACKSON, AUGUST 15, 16, 17, 1899.**

---

**FIRST SESSION.**

The meeting was called to order by the Secretary, Charles F. Mann, Tuesday afternoon, August 15th, 1899, at 2:45.

Secretary—In calling to order the seventeenth annual meeting of the M. S. P. A., I wish to express for our President, Mr. Sourwine, his sincere regrets at not being able to meet with us this year. His non-appearance would indicate that the fear, expressed in a recent letter from him, that owing to inability to secure help, he would probably be compelled to forego the pleasure of presiding over our deliberations, has been realized. I still have hope that he may make an appearance later on, but in the meantime, in the absence of the President and Vice-Presidents of the Association, it will be necessary to name a temporary chairman.

It was moved and supported that Mr. H. J. Brown, of Ann Arbor, be called to the chair.

Unanimously carried.

Mr. Brown takes the chair.

Mr. Brown—I thank you, gentlemen, for the honor of being called to the President's chair for the time being, and I am glad to see that those who have arranged the program have followed the good old

American custom, which dates from the time of our forefathers, in opening public meetings, in opening the meeting of the Association with prayer. And I call upon the Rev. Inglis to offer prayer.

Opening prayer by Rev. R. S. Inglis, pastor of First Presbyterian Church of the city of Jackson, Michigan.

President—The next thing on the program is the address of welcome by Mayor Loennecker.

Mayor Loennecker—Mr. President and Gentlemen: It affords me great pleasure to extend to you a hearty welcome in behalf of the city of Jackson. The people of the Central City wish to make your stay in our city a source of pleasure and enjoyment, and we are indeed glad to have you in our midst. You have come together to discuss problems for the advancement of your noble profession and in the interest of mankind. Able speakers will address you, and you will listen to entertaining and instructive discussions on these subjects in which you are specially interested, and on which you are a great deal better posted than I am, and I will not, therefore, detain you with a lengthy address. In closing I again extend to you a most cordial welcome. (Applause.)

President—I will call on Mr. A. S. Parker, of Detroit, to respond to the address of welcome.

Mr. Parker—Mr. Mayor: It has given me great pleasure to listen to what you have said, and I feel that we are indeed welcome, and speaking for the Association, I desire to assure you that we appreciate very much the welcome to the city over which you are chief executive, and which is noted for its push, energy and grit. Every city has some characteristic, some are noted for wealth, others for beauty, others for social and educational interests, others for some original idea in municipal government, and another city may be famous for its conservatism, but in my mind, and I have lived in Michigan all my life, the Central City has always been associated with push, energy and level-mindedness; and I may say to the residents of this city, it is for this that you are well known. In these days of progress and fierce competition it has become absolutely necessary for those engaged in a certain line of work to get together at stated intervals for the exchange of ideas, for the discussion of ways and means looking to the betterment of their condition and to self-protection, and incidentally for the benefit of all people interested. It is with this spirit that we are assembled here to-day in the spirit in which we are welcomed. We are here for business and work, and incidentally for pleasure on the side. You will find us a sociable body, and when we have closed our session and returned to our homes, we hope that you will feel like some day paying us a visit. We regret only that there are not more here, but the smallness of the number of members does not lessen the appreciation of the spirit you have shown in according us such a hearty welcome. In behalf of the Association, Mr. Mayor, I thank you.

President—The next thing in order is the President's address, but in the absence of the President, and if the President has not sent his address, we will have to lay this matter over until it arrives.

Secretary—The President wrote me that in event of his not being able to be here, he would send his address, but I have not received it up to this time. I have no doubt, however, that if the President does not appear later on, the address will be mailed.

President—There being no motion before the house, we will proceed with the program. The next thing in order is the Secretary's report.

Secretary reads report.

# SECRETARY'S REPORT.

Detroit, Aug. 8, 1899.

To the Officers and Members of the Michigan State Pharmaceutical Association:

Gentlemen—In submitting my annual report for the year just ending, I regret that I cannot make as good a financial showing as a year ago. This is due principally to the increased cost of issuing Proceedings and the decrease in amount of advertising secured for same. The large amount of prizes solicited for the '98 meeting seriously handicapped me in securing advertisements for the Proceedings.

The '98 Proceedings were issued on Dec. 22. I secured 18 advertisements at an income of \$199 00. The cost of issuing, including postage, etc., was about \$179 00, showing a profit to the Association of about \$20 00.

## FUND COLLECTED FOR SENDING DELEGATES TO THE N. W. D. A. AND P. A. OF A. CONVENTIONS.

|                                                                                            |         |
|--------------------------------------------------------------------------------------------|---------|
| Collected at Port Huron meeting.....                                                       | \$38 00 |
| Collected in response to letter issued to balance of members.....                          | 24 00   |
| Total .....                                                                                | \$62 00 |
| Paid to J. J. Sourwine.....                                                                | \$50 00 |
| Paid to C. N. Anderson.....                                                                | 10 00   |
| Amount received after sending delegates and placed in general fund of the Association..... | 2 00    |
| Total .....                                                                                | \$62 00 |

## FUND COLLECTED FOR SUPPORT OF N. A. R. D.

On Nov. 11th following the organization of the N. A. R. D. I issued a circular letter to the entire Retail Drug Trade of the State, soliciting contributions of \$1 00 each to a fund in support of the N. A. R. D. The amount collected on this account was \$85 25; expense of printing and postage, \$24. On Dec. 12th I sent to the Treasurer of the N. A. R. D. \$57 25 to be placed to the credit of the M. S. P. A. on its regular assessment; \$4 of the total amount collected was received after remitting and was placed in the general fund of the M. S. P. A.

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## Summary:

|                                             |                |
|---------------------------------------------|----------------|
| Total amount collected for N. A. R. D.....  | \$85 25        |
| Printing and Postage.....                   | \$24 00        |
| Paid Treasurer N. A. R. D.....              | 57 25          |
| Transferred to General Fund M. S. P. A..... | 4 00           |
| Total .....                                 | <u>\$85 25</u> |

## SPECIAL MEETING.

Persuant to a motion, which prevailed at our last annual meeting, a special meeting was called Jan. 31st, at Detroit Feb. 7th, to take action on the report of the Special Committee on Revision of Pharmaceutical Law. Vice-President E. E. Calkins presiding. The attendance at the meeting was very small, practically only enough being present to constitute a quorum. Two sessions were held. The report of the Committee was carefully reviewed and with some few changes and suggestions adopted as presented.

## LEGISLATIVE FUND.

On April 19th a circular letter was issued to about 75 prominent Retail Druggists throughout the State, setting forth the work confronting the Legislative Committee and soliciting funds to carry on this work. April 27 a further letter was issued and mailed to 500 more of the Retail Druggists, on the same question. The result of these letters was a total receipt of \$198 for the Legislative Fund.

## MEMBERSHIP.

The present active membership of the Association is 283. I have dropped from membership, for non-payment of dues, 31; dropped by request, 1; 5 members have resigned. I have learned of no deaths during the past year.

168 members have paid dues in full.

52 are in arrears for 1 year.

37 are in arrears for 2 years.

26 are in arrears for 3 years.

283 Total.

This is a total loss of 3 members from our showing of last year.

## CASH ACCOUNT.

### RECEIPTS AS SHOWN PER CASH BOOK.

|                                     |                 |
|-------------------------------------|-----------------|
| Dues .....                          | \$245 00        |
| Initiation Fees .....               | 28 00           |
| Engrossed Certificates .....        | 5 00            |
| N. A. R. D. Fund Balance .....      | 4 00            |
| Delegate Fund Balance.....          | 2 00            |
| Advertisements in Proceedings ..... | 199 00          |
| Total receipts .....                | <u>\$483 00</u> |

## PAID TREASURER FOR GENERAL FUND.

|                                                                |     |       |          |
|----------------------------------------------------------------|-----|-------|----------|
| 1898,                                                          |     |       |          |
| Aug.                                                           | 6.  | ..... | \$ 66 00 |
| Oct.                                                           | 23  | ..... | 7 00     |
| 1899,                                                          |     |       |          |
| Jan.                                                           | 7.  | ..... | 100 00   |
| Jan.                                                           | 10. | ..... | 70 00    |
| March                                                          | 7.  | ..... | 109 00   |
| July                                                           | 24. | ..... | 62 00    |
| Aug.                                                           | 8.  | ..... | 9 00     |
| Total .....                                                    |     |       | \$483 00 |
| Which together with balance in Treasury from last year of..... |     |       | \$ 7 45  |
| Makes grand total of.....                                      |     |       | \$490 45 |

I have drawn orders on Treasury for General Fund as follows:

|                                                        |    |                                                                                    |          |
|--------------------------------------------------------|----|------------------------------------------------------------------------------------|----------|
| 1898,                                                  |    |                                                                                    |          |
| Sept.                                                  | 1  | Order No. 1—Wm. Young, for engrossing 7 certificates .....                         | \$ 3 50  |
| Sept.                                                  | 3  | Order No. 2—The Richmond & Backus Co., Printing and Stationery .....               | 9 50     |
| Sept.                                                  | 16 | Order No. 3—H. A. Babcock, stenographer.....                                       | 15 00    |
| Sept.                                                  | 16 | Order No. 4—A. W. Taylor, stenographer.....                                        | 20 00    |
| Oct.                                                   | 23 | Order No. 5—C. F. Mann, Postage, Exchange, etc., and Advance to Delegate Fund..... | 22 80    |
| Dec.                                                   | 28 | Order No. 6—F. H. West, Printing.....                                              | 1 75     |
| Dec.                                                   | 28 | Order No. 7—Speaker Printing Co., Proceedings and Envelopes .....                  | 160 15   |
| 1899,                                                  |    |                                                                                    |          |
| Jan.                                                   | 7  | Order No. 8—C. F. Mann, Postage, etc.....                                          | 30 74    |
| Feb.                                                   | 8  | Order No. 9—F. H. West, Printing.....                                              | 1 25     |
| Feb.                                                   | 8  | Order No. 10—F. H. Bamlet, Hall for Special Meeting .....                          | 5 00     |
| July                                                   | 11 | Order No. 23—F. H. West, Printing.....                                             | 10 75    |
| July                                                   | 24 | Order No. 24—C. F. Mann, Postage, etc.....                                         | 13 40    |
| July                                                   | 24 | Order No. 25—C. F. Mann, part salary as Secretary                                  | 150 00   |
| July                                                   | 27 | Order No. 26—J. S. Bennett, Postage, etc.....                                      | 1 59     |
| Aug.                                                   | 7  | Order No. 27—C. F. Mann, balance salary as Secretary .....                         | 75 00    |
| Total .....                                            |    |                                                                                    | \$520 43 |
| Leaving a deficiency in Secretary's salary of \$29 98. |    |                                                                                    |          |

## LEGISLATIVE FUND.

|                                                 |    |                                                              |
|-------------------------------------------------|----|--------------------------------------------------------------|
| Amount in Treasurer's hands from last year..... |    | \$ 30 00                                                     |
| 1899,                                           |    |                                                              |
| May                                             | 1  | Paid Treasurer, collected through circular letters... 157 00 |
| June                                            | 8  | Paid Treasurer, collected through circular letters... 40 00  |
| July                                            | 24 | Paid Treasurer, collected through circular letters... 1 00   |
| Total .....                                     |    | \$228 00                                                     |

I have drawn orders on the Treasurer for Legislative Fund as follows:

|          |                                                  |         |  |
|----------|--------------------------------------------------|---------|--|
| 1899.    |                                                  |         |  |
| March 2  | Order No. 11—A. H. Webber, expenses at Lansing.. | \$13 52 |  |
| March 2  | Order No. 12—H. J. Brown, expenses at Lansing..  | 5 00    |  |
| March 20 | Order No. 13—C. F. Mann, expenses at Lansing.... | 7 16    |  |
| May 1    | Order No. 14—H. J. Brown, expenses at Lansing..  | 15 00   |  |
| May 1    | Order No. 15—A. H. Webber, expenses at Lansing.. | 27 05   |  |
| May 1    | Order No. 16—F. H. West, Printing.....           | 4 25    |  |
| May 8    | Order No. 17—A. H. Webber, expenses at Lansing.. | 13 62   |  |
| May 8    | Order No. 18—Geo. Gundrum, expenses at Lansing.  | 7 50    |  |
| May 11   | Order No. 19—H. J. Brown, expenses at Lansing..  | 7 50    |  |
| June 8   | Order No. 20—C. F. Mann, Postage, etc.....       | 10 56   |  |
| June 8   | Order No. 21—A. H. Webber, expenses at Lansing.. | 7 25    |  |
| June 23  | Order No. 22—A. H. Webber, telegraphing.....     | 1 45    |  |

|                                                    |          |
|----------------------------------------------------|----------|
| Total .....                                        | \$119 86 |
| Leaving a balance in the Treasurer's hands of..... | \$108 14 |

The work of the Secretary's office during the past year has been rather voluminous owing to the N. A. R. D. and Legislative matters. There has been the usual amount of general correspondence, all of which has been handled to the best of the ability of your Secretary.

Respectfully submitted,

CHARLES F. MANN,

Secretary.

Secretary (referring to statement in his report as to a deficiency)—There have been cash receipts since the making of the report which will make good the deficiency referred to.

President—You have heard the very full report of the Secretary. The custom is to refer it to the Executive Committee, which may be done without motion, and it may be so referred.

President—The next thing in order is the Treasurer's report.

Secretary—The Treasurer is not here, and I have not received his report.

President—We will then listen to the report of the Secretary of the State Board of Pharmacy.

Report read.

To the Michigan State Pharmaceutical Association:

Gentlemen—In accordance with the provisions of Act No. 134, Laws of 1885, I herewith submit my report as Secretary of the Michigan Board of Pharmacy for the year ending June 30th, 1899.

Yours respectfully,

A. C. SCHUMACHER,

Secretary Michigan Board of Pharmacy.



## RECEIPTS.

|                                                |           |
|------------------------------------------------|-----------|
| Balance on hand from Secretary G. Gundram..... | \$ 86 50  |
| Reg. Phar. Renewals—3032.....                  | 3,032 00  |
| Reg. Asst. Renewals—267.....                   | 133 50    |
| 89 Applications for Asst. papers.....          | 89 00     |
| 161 Applications for Reg. Phar. papers.....    | 483 00    |
| Total .....                                    | \$3,824 0 |

## DISBURSEMENTS.

|                                    |            |
|------------------------------------|------------|
| Paid Treasurer H. Helm.....        | \$3,575 00 |
| Refunded A. Liebman .....          | 3 00       |
| Balance on hand June 30, 1899..... | 246 00     |
| Total .....                        | \$3,824 00 |

During the year we have issued certificates to licentiates of other Boards of Pharmacy as follows:

Justin K. Mead (New Mexico), Bay City.

Two special meetings of the Board were held at follows:

Marquette, Aug. 30th and 31st, 1898.

Detroit, Jan. 10th and 11th, 1899.

Three regular meetings of the Board were held as follows:

Lansing, Nov. 1st and 2d, 1898.

Grand Rapids, March 6th and 7th, 1899.

Star Island, June 26th and 27th, 1899.

The following table shows the number of persons examined and passed:

|                   | Examined. |       | Passed. |       |                |
|-------------------|-----------|-------|---------|-------|----------------|
|                   | R. P.     | Asst. | R. P.   | Asst. |                |
| Marquette .....   | 9         | 2     | 4       | 2     | 3 50% Ruling.  |
| Lansing .....     | 50        | 11    | 14      | 6     | 25 " "         |
| Detroit .....     | 39        | 12    | 14      | 2     | 16 60% Ruling. |
| Grand Rapids ...  | 41        | 17    | 6       | 4     | 22 " "         |
| Star Island ..... | 68        | 25    | 21      | 15    | 23 " "         |
|                   | 207       | 67    | 59      | 29    | 89             |

The percentage of Registered Pharmacists passed..... 285

The percentage of Registered Assistant Pharmacists passed.... 432

The percentage of Registered Pharmacist Applications entitled to

Asst. papers ..... 429

Registered Pharmacists that failed entirely..... 285

Thirty-six complaints of violations of the Pharmacy Law were recorded during the year.

Seventeen of the complaints were placed in the hands of the Attorney.

Seventeen of the complaints were dropped by the Board for lack of evidence, etc. Two are in the hands of the Secretary for investigation.

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Found guilty of violation, five cases.

Ordered dropped by the Attorney on account of lack of evidence, sold out, etc., ten cases.

Found guilty and let off on suspended sentence, two cases.

|                                                             |            |
|-------------------------------------------------------------|------------|
| Total fines and costs for year.....                         | \$61 50    |
| Total fines and costs since the law was enacted to June 30, |            |
| 1898 .....                                                  | \$2,874 88 |
| Fines and costs for year just ended.....                    | 61 50      |
| Total .....                                                 | \$2,936 38 |
| Legal expenses for the year just ended.....                 | 277 89     |
| Legal expenses for previous years.....                      | 8,561 09   |
| Total .....                                                 | \$8,839 58 |

Notices were sent to ninety-seven Registered Pharmacists and seventy-two Registered Assistants to cease to act as Registered Pharmacists and Assistants Feb. 1st, as ordered by the Board at the November meeting held at Lansing, 1898. Fourteen Registered Pharmacists sent in their renewal fee before the ten days allowed by law had elapsed, and two assistants renewed before the limited time.

Eighty-three Registered Pharmacists failed to renew.

Seventy Assistants failed to renew.

#### SUMMARY.

|                                                                                    |       |
|------------------------------------------------------------------------------------|-------|
| Registered Pharmacists in 1898.....                                                | 3,115 |
| Registered Pharmacists added in 1899.....                                          | 67    |
| Total .....                                                                        | 3,182 |
| Failed to renew in 1899 .....                                                      | 83    |
| Total number for 1899.....                                                         | 3,099 |
| Total number of Registered Pharmacists that failed to renew to June 30, 1898 ..... | 1,357 |
| Total number of Registered Pharmacists that failed to renew to June 30, 1899.....  | 83    |
| Total .....                                                                        | 1,440 |
| Highest registration number June 30, 1899.....                                     | 4,530 |

#### ASSISTANTS.

|                                 |     |
|---------------------------------|-----|
| Total number June 30, 1898..... | 328 |
| Added in 1899 .....             | 66  |
| Total .....                     | 394 |

# Michigan State Pharmaceutical Association.

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|                                                                   |       |
|-------------------------------------------------------------------|-------|
| Failed to renew in 1899 .....                                     | 70    |
| Total number of Assistants for 1899.....                          | 324   |
| Total number of Assistants that failed to renew to June 30, 1898. | 771   |
| Total number of Assistants that failed to renew to June 30, 1899. | 70    |
| Total .....                                                       | 841   |
| Highest registration Assistants number June 30, 1899.....         | 1,155 |
| Total number of Registered Pharmacists up to June 30, 1899....    | 3,000 |
| A decrease of 16 according to report of 1898.                     |       |
| Total number of Registered Assistants up to June 30, 1899.....    | 324   |
| A decrease of 4 according to report of 1898.                      |       |

President—Gentlemen, you have heard the report of the Secretary of the State Board of Pharmacy. I think the custom is simply to receive this report. The report is received and will appear in Proceedings of the Association, and the details of it can be studied by anyone interested.

President—I see the Treasurer has now arrived, and we will now have the Treasurer's report.

Treasurer reads report:

## TREASURER'S REPORT.

Michigan State Pharmaceutical Association, year ending August 15, 1899.

### CASH RECEIPTS.

#### GENERAL FUND.

|               |                                                         |
|---------------|---------------------------------------------------------|
| 1898.         |                                                         |
| Aug. 6        | To C. F. Mann, Secretary.....\$ 66 00                   |
| Aug. 8        | To J. D. Muir, Treasurer, bal. from previous year ..... |
|               | 7 45                                                    |
| Oct. 26       | To C. F. Mann, Secretary.....                           |
|               | 7 00                                                    |
| 1899.         |                                                         |
| Jan. 9        | To C. F. Mann, Secretary.....                           |
|               | 160 00                                                  |
| Jan. 11       | To C. F. Mann, Secretary.....                           |
|               | 70 00                                                   |
| March 8       | To C. F. Mann, Secretary.....                           |
|               | 100 00                                                  |
| June 25       | To C. F. Mann, Secretary.....                           |
|               | 62 00                                                   |
| Aug. 12       | To C. F. Mann, Secretary.....                           |
|               | 9 00                                                    |
| —————\$490 45 |                                                         |

#### LEGISLATIVE FUND.

|               |                                                         |
|---------------|---------------------------------------------------------|
| 1898.         |                                                         |
| Aug. 8        | To J. D. Muir, Treasurer, bal. from previous year ..... |
|               | \$ 30 00                                                |
| May 3         | To C. F. Mann, Secretary.....                           |
|               | 157 00                                                  |
| June 10       | To C. F. Mann, Secretary.....                           |
|               | 40 00                                                   |
| June 25       | To C. F. Mann, Secretary.....                           |
|               | 1 00                                                    |
| —————\$228 00 |                                                         |

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|                                   |                |
|-----------------------------------|----------------|
| Total receipts .....              | \$718 45       |
| Orders paid General Fund.....     | \$490 45       |
| Orders paid Legislative Fund..... | 119 86         |
|                                   | <hr/> \$610 31 |
| Balance Legislative Fund.....     | \$108 14       |

J. S. BENNETT,

Lansing, Mich., Aug. 14, 1890.

Treas. M. S. P. A.

CASH DISBURSEMENTS.

GENERAL FUND.

|       |    |                                       |                |
|-------|----|---------------------------------------|----------------|
| 1898. |    |                                       |                |
| Sept. | 5  | Order No. 1—Wm. Young .....           | \$ 3 50        |
| Sept. | 5  | Order No. 2—Richmond & Backus Co..... | 9 50           |
| Sept. | 20 | Order No. 3—H. A. Babcock.....        | 15 00          |
| Sept. | 22 | Order No. 4—A. W. Taylor.....         | 20 00          |
| Oct.  | 28 | Order No. 5—C. F. Mann.....           | 22 80          |
| 1899. |    |                                       |                |
| Jan.  | 6  | Order No. 6—F. H. West.....           | 1 75           |
| Jan.  | 11 | Order No. 7—Speaker Printing Co.....  | 160 15         |
| Jan.  | 12 | Order No. 8—C. F. Mann.....           | 30 74          |
| Feb.  | 15 | Order No. 9—F. H. West.....           | 1 25           |
| Feb.  | 15 | Order No. 10—F. H. Bamlet.....        | 5 00           |
| July  | 17 | Order No. 23—F. H. West.....          | 10 75          |
| July  | 27 | Order No. 24—C. F. Mann.....          | 13 40          |
|       |    | C. F. Mann.....                       | 150 00         |
| Aug.  | 12 | Order No. 27—C. F. Mann, part.....    | 45 02          |
|       |    | J. S. Bennett.....                    | 1 59           |
|       |    |                                       | <hr/> \$490 45 |

LEGISLATIVE FUND.

|       |    |                                    |                |
|-------|----|------------------------------------|----------------|
| 1899. |    |                                    |                |
| March | 27 | Order No. 11—A. H. Webber.....     | \$ 13 52       |
| March | 7  | Order No. 12—H. J. Brown.....      | 5 00           |
| March | 7  | Order No. 13—C. F. Mann.....       | 7 16           |
| May   | 6  | Order No. 15—A. H. Webber.....     | 27 05          |
| May   | 6  | Order No. 16—F. H. West.....       | 4 25           |
| May   | 6  | Order No. 14—H. J. Brown.....      | 15 00          |
| May   | 15 | Order No. 19—H. J. Brown.....      | 7 50           |
| May   | 15 | Order No. 18—Geo. Gundrum .....    | 7 50           |
| May   | 15 | Order No. 17—Arthur H. Webber..... | 13 62          |
| June  | 12 | Order No. 20—C. F. Mann.....       | 10 56          |
| June  | 12 | Order No. 21—A. H. Webber.....     | 7 25           |
| June  | 26 | Order No. 22—A. H. Webber.....     | 1 45           |
|       |    |                                    | <hr/> \$119 80 |

President—Gentlemen, you have heard the report of the Treasurer. In accordance with our custom it will be referred to the Executive Committee. The next thing in order is the receiving of delegates. Are there any delegates to be received, Mr. Secretary?

Secretary—I have not the credentials of any.

President—That disposes of all that is on the program. If we have applications for membership I think it would be well to act upon them at the present time.

President—Have we some applications for membership, Mr. Secretary?

Secretary—We have, Mr. President. I will read them.

Secretary reads names of applicants for membership as follows:

F. C. Arner, Petoskey.  
A. J. Bellaire, Gladstone.  
C. P. Black, Lansing.  
H. Pinkerton, Detroit.  
J. W. Seeley, Detroit.  
F. L. Henderson, Jackson.  
W. W. Manderville, Chicago, Ill.  
J. S. Kane, Onstead.  
G. R. May, Jackson.  
G. H. Knaak, St. Joseph.  
M. W. Hoffman, Jackson.  
W. H. Burke, Detroit.  
E. J. Weeks, Jackson.  
J. J. Wells, Athens.  
P. Kephart, Berrien Springs.  
S. Kidder, Jr., Almont.  
D. A. Hagans, Monroe.  
J. C. Wilkinson, Crystal Falls.  
V. R. Conway, Sault Ste. Marie.  
W. R. Bacon, Sault Ste. Marie.  
W. A. Rudell, Sault Ste. Marie.  
S. Zeller, Sault Ste. Marie.  
F. R. Price, Sault Ste. Marie.

Total 23.

The Secretary reads a letter from Mr. N. D. Morrish, of Sault Ste. Marie, with enclosure, as follows:

Sault Ste. Marie, Mich., Aug. 14, 1899.

Mr. Chas. F. Mann, Secretary,  
Jackson, Mich.

Dear Sir:—Enclosed find \$16, of which \$15 is for membership and certificates for V. R. Conway, W. A. Rudell, W. R. Bacon, Fred R. Price and S. Zeller, and \$1 for an engrossed certificate for myself. As I could not come to the meeting on account of this being our busy season, I have done the next best thing by getting all the druggists of the Soo to send in their applications for membership.

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I hope that you will have a profitable meeting and a royal good time, and am sorry that I cannot be present.

I wish to say that as I had no regular blanks to fill in I thought the enclosed method would do, but if not, send the blanks along and I will see that they are properly filled in.

Please send me a card as soon as you receive this, as I send it to Jackson, trusting that you will receive while the meeting is in session.

Yours respectfully,

N. D. MORRISH.

Sault Ste. Marie, Mich., Aug. 14, 1899.

Mr. Chas. F. Mann,  
Sec. M. S. P. A.

Dear Sir:—As it is impossible for us to attend the meeting of the Association, we herewith enclose \$15, being the amount for membership with engrossed certificate.

While we cannot be present we feel that our fees may help the treasury.

We know that the Association as an organization has power with the Legislature which individual members have not, and recognizing the good work done in the past in preventing adverse legislation, and hoping the Committee on Legislation will continue its vigilance in our behalf, we, the Soo druggists, cheerfully contribute our fees.

(Signed)

FRED R. PRICE,  
V. R. CONWAY,  
W. A. RUDELL,  
W. R. BACON,  
S. ZELLER.

Recommended by N. D. Morrish.

Secretary—I think we should extend to Mr. Morrish a vote of thanks for rounding up the druggists of the Soo, as he has done.

It was moved and supported that Mr. Morrish be given a special vote of thanks.

Carried.

President—Is there any further business to come before this meeting at this time?

Secretary—I have an accumulation of correspondence that I have saved, as being of importance, which pertains to matters I think might be of interest to the Association. If you care to listen to them, I will read such portions of them as I think may be of interest.

President—If there is no objection, and it is the pleasure of the Association, we will listen to these communications.

Secretary reads letters as follows:

From E. C. Garber, Secretary of the Western Pennsylvania Retail Druggists, relative to the fight with The Potter Drug & Chemical Corporation (Citicura) and Ripans Chemical Co.

From T. V. Wooten, Secretary N. A. R. D., on the same subject.

From T. V. Wooten, Secretary N. A. R. D., relative to the assessment of the M. S. P. A.

From the Membership Committee of the Amer. Ph. Assoc., urging our members to join that body.

From L. C. Hopp, local Secretary, asking our members to attend the meeting of the Amer. Ph. Assoc. at Put-in-Bay.

Mr. Webber—I move that the letter of E. C. Garber be referred to the Committee on Trade Interests, so that it may be up for further discussion.

Supported and carried.

Secretary—There is another matter (referring to letter from T. V. Wooten, secretary, on same subject), which I suppose might be referred to the Trade Interests Committee.

Motion to that effect made, seconded and carried.

Secretary—Referring to matter of assessment of N. A. R. D. I think this matter ought to be referred to the Executive Committee.

Motion that it be referred to the Executive Committee supported and carried.

President—I think, gentlemen, of the Association, it would be proper that we suspend the by-laws requiring the reference of the applications to the Executive Committee, and have them voted in at this session, so as to give these applicants the privileges of our meeting at once. If some one will make the motion to that effect I will entertain it.

Mr. Webber—I move that the rules be suspended, and that the Secretary be instructed to cast a vote for the election of the applicants referred to.

Motion seconded and carried.

Secretary—I have a letter to Mr. Van Marter, the local secretary, from the Central City Soap Company, inviting us to visit their works.

Secretary reads letter:

"Jackson, Mich., Aug. 15, 1898.

E. J. Van Marter, Esq.,

Chairman Entertainment Committee,  
State Druggists' Association.

Dear Sir:—It has occurred to us that some of the members of your Association who will attend your meeting this week, will have some curiosity to see the process of manufacture of modern laundry soap and the attendant manufacture of its by-product, glycerine. We therefore extend to your Association a cordial invitation to visit our works at any time during their stay which may be most convenient for them, and if you will kindly inform us of the hour, if the Association or any portion of it finds time to accept our invitation, the writer will be present and give them such explanation as may be possible in the limited time at their disposal.

Sincerely yours,

"F. D. BENNETT,

President.

Motion made and carried that the Association visit the soap works at 4 o'clock, and that the Secretary be instructed to so inform the Soap Company.

President—We will stand adjourned until to-morrow morning at 9 o'clock. I hope you will all be present and that the President will be here at that time.

Adjourned at 3:50 p. m.

## SECOND SESSION.

Meeting called to order at 10:15 a. m.

President—We followed out the program of yesterday, with the exception of the President's address. His address has arrived, and if it is the wish of the meeting I will read it. I hear no objection, and conclude that you want to hear it.

President reads President Sourwine's address:

## PRESIDENT'S ADDRESS.

Gentlemen of the Michigan State Pharmaceutical Association:

It is with unfeigned pleasure that I greet you, upon the assembling of this, our seventeenth annual convention. I am sensible of the many honors conferred upon me by this Association, and beg to acknowledge them with a feeling of pleasant indebtedness. I feel that I owe you a larger debt of labor and gratitude than my feeble abilities will permit me to realize or perform, and I greet you as a friend, a co-worker, in the building up of a demoralized profession, and as a citizen of the greatest republic the world has ever known. It is not my desire to



burden you with a long recital of the grievances affecting us, as they are probably better known by those residing nearer the seat of war than I, but there are a few items which appear to me worthy of special notice at this time. I may possibly tread on a well-beaten track, as there are no doubt members of this Association present who have studied these questions in their various phases more thoroughly and longer than I have, but if what I may say will arouse any new interest in the cause, I shall be content. This meeting adds another honorable notch to the history of the retail drug trade in this State, and impresses us with the perseverance and solicitude of the older and more active members, who are still with us, and who have constantly held in view, not only their own private interests, but those of the trade in general throughout the State and nation, for sentiment created in Michigan has its influence on like conditions existing elsewhere, and I hereby wish to thank and congratulate the members who have been longest in the service. They have, by their allegiance and inestimable service, long since been advanced from the ranks of honorable privates to the higher commissions of generals and chiefs, with mental visions widened by the scope of fleeting years, and competent to contrast better than I the ever-changing conditions of then and now. They have seen the pharmacist of other days, the kodak fiend of to-day, or the tall, straight profession of two decades ago, emerge from the mills of evolution, with a bicycle hump on its back of latest design, and the end is not yet. They have seen the scientific side of their chosen field grow less and less, until practically all save memory has fled. I congratulate you most heartily on the reawakening of the trade everywhere from its lethargy of the past, and its realization that while it may have been a victim of unalterable conditions, it will, phoenix-like, rise from the fires of despondency to a new and higher plane, if we are capable of coping with the practical problems as they appear. All great and lasting reforms have sprung from the very throes of despair, and the wakes of unfettered ruins have later been the returning highways of progress. The appalling business depressions of the past few years, combined with the cut-rate and department store problems, has had a tendency to draw us closer together, and like the magic touch of a comrade's elbow on the field of battle, has changed our lamentations of grief into shouts of defiance. Stolid indifference has given way to logical action from a practical standpoint.

We are standing to-day, a visible body on our own heath, thinking and working out our own destiny. We have forsaken the wailing chorus of discordant grief, and turned our eyes towards the Mecca of organization and unionism. A year ago, our country, was engaged in deadly conflict with a foreign foe, and we forgot many of our grievances in our enthusiasm for the flag. A war of humanity was waged that an enslaved people might know liberty, and I am glad to say, another despotism has been driven from the Western Hemisphere, with its crown, kingdom, 'Divine right' and all. But in its place, a commercial despotism has established itself in so many forms that more people are commercially enslaved than politically freed. The trusts seem to control everything worth controlling, and do it with more thoroughness than ever before, and the burdens of the small dealer increases in proportion to their thrift. If this is a result of our war for humanity I am inclined to believe that the other fellows got the best end of the bargain, especially as the retail drug trade paid nearly all the tax, and with no apparent relief from this burden even to-day. It is further reported on good authority that the list of taxable goods in

the drug line will be extended. This probably means the placing of a meter on each ray of sunshine piercing a drug-store window, as there is nothing else left. One of the latest trusts to be mentioned in the public press is the wholesale drug trust, which is said to have been born in the East, and like the proverbial young man, has 'come West to grow up with the country.' Just how far it has gone, or how much it has grown, I am unable to say, but judging from the thrift of the others of its class, I have no doubt it will mature and make its presence felt at the proper time. The general tendency of all the holders of capital seems to be in strong combinations to control the output as well as the price of all commodities. A legitimate profit in open competition seems to be too slow a process in this fast closing century, and small retail dealers are being driven out of business to satisfy combined greed. Arrogant manufacturers tell us to help ourselves out of this difficulty, and then they get mad and red in the face when we proceed to do as we are bidden. It may be that eventually these things will be regulated by statute provisions, classifying all branches of trade, and placing sufficient restrictions on each to insure its being continued as a distinct and proficient trade or profession. This, however, is not a possibility until its political and commercial expediency shall have been demonstrated by the numerical strength of those interested.

Old world statesmen and scholars claim that all our civil laws are mere experiments, unless based upon theirs; that they have passed through the experimental age, and are now doing business on the ground floor, which I am inclined to believe is half truth, especially as applied to the regulation of different lines of trade. A pharmacist in the older countries is what his title implies in every sense of the word. He is governed by laws tending to develop the practical and scientific sides of pharmacy, and the better instincts of mankind in general. With us, it is the reverse. We in the State of Michigan are blessed with laws enough to run two prohibition States out West, and still forced to compete with the man whom none of the laws will touch. We are, to say the least, at a decided disadvantage in being forced to do business under many restrictions, not applicable to others, and our hope of relief can be realized only by thorough organization, combining both political and commercial principles, to be used when and where necessary to make our organization a legitimate factor in the proper adjustment of affairs from our point of view. It is said that it takes a politician to get votes, and the successful politician is the statesman of our time. While this may or may not be true, I believe there is more in it than an empty theory, and I would practice politics with pharmacy, at least sufficiently far to ascertain the views as far as possible of candidates, and prospective candidates, relative to future legislation in which we are interested. Mingle in the affairs of both parties, in ward, county and district, and make of ourselves politicians as far as our own interests are concerned. We have already had sufficient experience to warrant our keeping on the alert for future attempts at political assassination, and to ever remember that 'eternal vigilance is the price of liberty.'

Pharmacy to-day, as a profession, is a failure, because of unlawful competition, and no demand for the scientific side of it. We should open our eyes to this fact, and combine more of the practical and political in perfecting our organization, local, State and National. In every city or hamlet, where there are one or more drug stores, there should be some sort of organization, working in harmony with this Association, and through it with the N. A. R. D. Organization is our

weapon for warfare, and our shield for defense. Through it, and it alone, can we ever expect to advance our mutual interests as retail merchants, or reach a higher plane professionally, and I would like to see this Association, and the druggists of the State generally, endorse the N. A. R. D. in no uncertain terms. In my first report to this body, as a delegate to the N. W. D. A., I advocated the formation of a national association of retail druggists, as the only means of achieving the higher aims of pharmacy. This has been accomplished, and at its initial meeting at St. Louis, in October of last year, it represented 15,000 retail druggists, and this year will represent double that number, as there are thirty States in the friendly alliance, giving moral and financial support to a cause that is destined to triumph over the miserable conditions that have heretofore prevailed. Thus far, only one State has refused to admit the wisdom of a national organization, viz., New Jersey.

Thorough organization will solve the problem of the price-cutting evil, and give us a fair return for money invested. It will eventually root out unjust and illicit competition, and make pharmacy respected as a profession. It will protest in the name of liberty against the levying of taxes upon one branch of trade, either in war or peace, while all others are exempted. It will prevent certain manufacturing concerns who have one price for druggists, and a less for hospitals, from fooling even a few of the people all of the time. It is to be regretted that our pharmacy law, as revised by the Special Committee, and recommended by this Association at our last annual meeting, should have failed to meet the approbation of the State Legislature. It is unfortunate in more than one sense, that this question should be dragged back and forth continually to satisfy the never-ending whims of a few who imagine a great deal more than they know. The flighty estimation of a druggist's profits, morals and station in life, has brought about a combination of heretofore warring elements, whose whole aim seems to be to make life unpleasant for somebody, under the guise of moral improvement. The attempted passage of both the Flood and Nevins bills resembled very much a preconcerted effort of both saint and sinner to 'put down' the liquor traffic on one hand, and put it up on the other. One of those bills was so constructed that it would have either driven half the druggists of the State out of business, or made licensed saloons, in name, of all of them. This is not admitting that this part of the retail drug business is profitable, or even looked upon with favor by the trade in general. In a majority of cases, the net revenues from all sources combined would not be sufficient to meet this extra expense.

The other bill, even if it had passed, would have choked itself to death without much effort, as there is no occasion in this great republic wherein citizens are compelled to walk up every Monday morning and stand as their own traducers. If he has committed a crime, he cannot be fined for refusing to be a prosecuting witness against himself, as all men are held to be innocent until proven guilty. If he has committed no offense against the laws of the State, why compel even a druggist to make a weekly affidavit that he has behaved himself?

"I also further believe that the exempted articles in our present pharmacy laws (which anyone can sell), detrimental to the interests it aims to subserve. It is a grievous mistake, and an entering wedge towards making a farce of the higher aims of pharmacy, even though it is contended for on the plea of expediency. I know this is an argu-

ment against an old custom, but I cannot see the wisdom of allowing the indiscriminate sale of poison by the ton, as well as other drugs, while quinine and cathartic pills must be handled according to law.

My honorable predecessor has very wisely called your attention to the advisability of securing better fellowship with the physicians of our State. I can but re-affirm what he has already said on this subject, and hope that this Association will make an effort to hold our annual meeting at the same time and place as theirs, believing that thereby we can come into closer relationship and materially advance the interests of both. Having had some conversation with the leading members of the Upper Peninsula Physicians' Association on this topic, I believe it can be so arranged that a great many of the perplexing questions, peculiar to all, can be eliminated by closer affiliation. Quacks and 'fakirs' traveling about the country, preying upon the legitimate profession, should meet with no friendship from druggists, as they live only on the superstition of afflicted mankind, which discourages belief in educated professions. They are a menace to honorable and practical business methods, and should be opposed by all druggists, as well as regular practicing physicians. This, I believe, we owe to the profession, if we expect their friendship, and whose approbation, I have no doubt, will be given us in return as individuals and as an organization. No physician should handle his own medicine, only in extreme cases, and no druggist should practice what is called "counter prescribing," only when absolutely necessary.

Mutual manufacturing has never impressed me very favorably, as there are too many opportunities for dissension, the expense too large and the actual working factors too varied and intricate for successful development by a large body of stockholders. Theoretically, however, it is all right, but does not go far enough. I believe in the manufacturing of a universal druggists' line, the actual manufacturing to be done by some firm already equipped for such work, and financially responsible for the faithful performance of its contract, the formulas, copyrights, etc., to belong to the Retail Druggists' Association. This would prevent the possible contention over salaries, mismanagement, etc., incident to the working of such concerns, and preclude the payment of advanced funds only as needed to purchase goods. It would also give us these goods at a much less price than we are now paying, or could manufacture them ourselves. They would become universally known and more popular in time than the advertised patent article of to-day. We would give the public a better remedy, and still be independent of the rise in water rates in either New York or Vermont.

Our Board of Pharmacy has always met every requirement, as far as its limited powers would permit, and is a credit to the State. If we ever get a pharmacy law based upon actual requirements, I would like to see it constructed so as to give the board power to revoke as well as to grant licenses. While I am satisfied that nine-tenths of the druggists of the State are law-abiding, and practice pharmacy in harmony with the spirit of the law, yet there are a few whose contumacy casts unpleasant reflections upon all. Their license to do business under the guise of druggists should be taken away. There are also those outside of the trade, whose mental vision does not extend beyond their own doorstep, and as is to be expected, all druggists look alike to them. They continually compare the whole trade with the worst member who comes under their vision.

"The financial and numerical standing of this Association will be best shown by the reports of the Secretary and Treasurer, and I refrain from comment thereon, only to say that they have been earnest in their labors for the welfare of the Association, the Secretary especially devoting much time and labor to the work. Special thanks are due and hereby extended to the Legislative Committee, whose efforts in our behalf have been unceasing, and trying in the extreme. Their labors should be an incentive to us for renewed efforts towards better organization and preparation for future conflicts.

To all the officers and members of this Association, whose uniform courtesy and kindness have been a pleasant feature of my official year, I wish to acknowledge my indebtedness, and entreat you to continue the work of organization and equipment with more vigor than that of the past year.

President—Gentlemen, you have heard the President's address. What is your pleasure in regard to it?

Mr. Webber—I move that the President's address be left with a committee of three to report upon at our next regular session.

Motion supported and carried.

President—I will appoint as such committee, Mr. Webber, of Cadillac; Mr. Van Marter, of Jackson, and Mr. Burke, of Detroit.

The Secretary has some communication for us, I think, at this time. What have you, Mr. Secretary?

Secretary—I have a letter from Dr. Geo. J. Ward, of St. Clair, which I will read.

St. Clair, Mich., August 14, 1899.

Chas. F. Mann, Secretary M. S. P. Association, Jackson, Mich.:

Dear Sir—I am very sorry that I shall be unable to attend this year's meeting of the Association. I am very busy and short of help on which I depended. I had looked forward to it with much pleasure, as I always do to the meetings of the Association, but especially so this year, as I expect you will have a very profitable and enjoyable session; the loss, however, is mine. I feel that the retail drug trade is awakening up to its own interests, and although much has been done in the recent past, very much more remains to be done in the future, but from my acquaintance with many of the members of the Michigan Association I am confident that its influence will be felt for good.

Yours truly,

GEO. J. WARD.

Also reads a letter from the druggists of Marquette extending an invitation to hold the next annual meeting at that city. Also from the citizens of Marquette on the same subject.

Marquette, Mich., Aug. 14, 1899.

C. F. Mann, Secretary, Detroit, Mich.:

Dear Sir—On behalf of the druggists of Marquette, we respectfully invite the Michigan Pharmaceutical Association to hold its next annual

meeting (for 1900) in this city. Will do our utmost to make it pleasant for you, and think the trip to Pictured Rocks alone would repay for all extra time in traveling; so try to arrange for it. We think, too, it would tend to increase interest in the Association among the Upper Peninsula druggists.

Respectfully,

EDWARD O. STAFFORD,  
FRANK PENDELL,  
F. H. DESJARDINS.

Marquette, Mich., Aug. 14, 1899.

Mr. Chas. F. Mann, Secretary Michigan State Pharmaceutical Association, Jackson, Mich.:

Dear Sir—Allow me, upon behalf of the Common Council of the City of Marquette, to heartily endorse the invitation of our Citizens' Committee to your associates, for the holding of your 1900 session in our city. Should you avail yourself of this invitation, I can safely say it will never be regretted.

Very truly yours,

J. F. NEIDHART, Mayor.

Marquette, Mich., Aug. 14, 1899.

Mr. Chas. F. Mann, Secretary Michigan State Pharmaceutical Association, Jackson, Mich.:

Dear Sir—The Druggists' and Citizens' Committee of Marquette, Mich., extend to the Michigan State Pharmaceutical Association an invitation to hold their next meeting in 1900 at Marquette. We understand that you have never had a meeting on the south shore of Lake Superior. We have many important towns that are enthusiastic in the profession, and who no doubt would be in good attendance and become members of your respected Association. We enclose you herewith invitations from our Mayor and Common Council, also the Druggists' and Citizens' Committee.

Satisfactory arrangements can be made with the different railroads and boat lines for reduced transportation.

We hope to make it a royal, loyal time.

Yours truly,

W. B. HARRIS,  
Secretary.

Marquette, Mich., Aug. 14, 1899.

Mr. Chas. F. Mann, Secretary, Michigan State Pharmaceutical Association, Jackson, Mich.:

On behalf of the Citizens' Committee of the City of Marquette, we extend to you and your Association a most cordial invitation to hold your next annual session in 1900 in our city.

Coming as it does in mid-summer, we earnestly believe that the holding of a session in the metropolis of the Upper Peninsula, where, as we understand, none has ever been held, will conduce to the enlargement of your membership, and be an outing long remembered among you.

Our citizens are well known for their hospitality, and we will promise you every help in our power, giving you the free use of our opera house, excursion to the famous Pictured Rocks—in fact, if your Association thinks well enough of this invitation we will spare no pains to make it the most successful meeting your Association will ever have.

Trusting a favorable reply in the near future, we are, my dear sir,

Very truly yours.

CITIZENS' COMMITTEE.

Per W. B. HARRIS.

Secretary.

President—You have heard the letters read, gentlemen, and they will be taken up later on and considered in regular order.

Secretary—I have a letter from St. Joseph containing an invitation to hold the next annual meeting in that city. (Reads the letter.)

St. Joseph, Mich., Aug. 15, 1890.

To the President and Members of the State Pharmaceutical Association, Jackson, Mich.:

Gentlemen—We want the next meeting of your honorable body to be held in this city, and we want it "mighty bad," and offer the following reasons as inducements why you should honor us with your presence:

1st. St. Joseph is the center of the universe, the horizon being equally distant, in every direction, from the flagstaff surmounting our Court House.

2nd. Our transportation facilities are unexcelled. The Big Four, Chicago & West Michigan, Milwaukee, Benton Harbor & Columbus, and the St. Joseph, South Bend & Southern Railways, centering here and in Benton Harbor (our sister city), with good electric street railway connections, cars running every fifteen minutes, and the Graham & Morton (Lake) Transportation Company, their palatial steamers making four trips daily each way between this port and Chicago, so that if the members of your great organization should become disappointed or tired of our treatment, they can take the six o'clock boat for Chicago, remain in the Windy City over night, and return here on the morrow to resume their arduous duties.

3rd. We have the finest drinking water here that is to be found in the world, outside of St. Louis, and mineral baths of such potency that after a few have been taken, new life courses through the most sluggish blood, and they have even been known to awaken honest motives and impulses in those who for years have refused to honor their bills.

4th. At the last session of Congress we secured an appropriation of three hundred and eighty thousand dollars for our harbor, a portion of which we may be able to slice off for you should your exchequer become depleted while here through exorbitant demands of our aristocratic landlords.

5th. We live in the center of Michigan's great fruit belt, and will feed you on peaches, blackberry jam, Osage melons, water melons, blackberry pie, and wind. Come on—don't consider any other place.

6th. This is the home of the Honorable L. E. Reynolds, a member of the State Board of Pharmacy, who will bid you each and all a hearty welcome, and if it becomes absolutely necessary, will not let your thirst become intolerable because your stomachs refuse to retain lake water.

Hoping you will give this your most favorable consideration, and that you will not for one moment entertain propositions submitted by such small places as Lansing, Grand Rapids and Detroit, but will at once wire us at your expense that you have selected St. Joseph as the most proper place for your next meeting, we subscribe ourselves,

Your most obedient servants,

A. L. CHURCH, Mayor.

L. E. REYNOLDS.

President—We will take action on this letter later on in the regular order. The first thing on the program is the report of the Executive Committee. The Chairman, Mr. Phillips, is not here, and the only other member here may be able to report.

Mr. Eberbach—There is no report that I know of. I was notified by the Chairman that there was not any report to make except as to the arranging for this meeting, by the committee, which met for that purpose at the time of the special meeting last winter.

Mr. Webber—There were some matters referred to this Executive Committee last session to consider and report on at this session.

Secretary—There are several matters for the committee to act on, the approving or disapproving of the Secretary's and Treasurer's reports, and matters just referred to. There are but two of the members of the committee here, Mr. Eberbach and Mr. Prall. It might be well for the Association to name three more to act with them on this committee. I would suggest Mr. Webber, Mr. Parker and Mr. Russell; and will offer as a motion, that they be added to the committee for the time being.

Motion supported and carried.

President—These gentlemen will take these matters into consideration and be ready to report at the session this evening.

President—The next report is the report of the Committee on Trade Interests, C. N. Anderson, Chairman.

Secretary—By way of explanation, I will say that Dr. John E. Peck was made Chairman of this committee. He wrote me about two months ago that he was going to take a European trip and would be unable to be here, and I then had considerable correspondence with the President in regard to appointing someone to act in his stead, and finally Mr. Anderson consented to act, but he is not present and has not sent in his report. I think all our committees are mismanaged in



not being allowed to select their own chairmen. I think it is a mistake to take the first member on the committee for chairman, irrespective of whether he can or will act. I think it would be well to incorporate this, in some way, into our Constitution and By-Laws, that committees select their own chairmen. Would it be possible to introduce an amendment of this kind to be acted upon later?

President—Yes. You may prepare and offer it later.

President—We will pass the report of the Trade Interests Committee, and the next report is that of the Committee on Pharmacy and Queries. The Chairman is not here, but Dr. Lyons is present and perhaps he can give a report.

Dr. Lyons—Prof. Prescott wrote me that he could not be here, and also that it was the intention of the Association not to devote any time to scientific matters at this meeting; that it was the expressed wish of the Association at its last meeting not to give any time to the discussion of scientific questions, and that the time taken for scientific matters would be devoted to other questions, and therefore he had no report.

President—Do you understand that there was to be no report for the meeting on the subject?

Dr. Lyons—He wrote that he had no report.

President—I feel somewhat like saying that the doctor is laboring under a misapprehension as to the real state of the case. As I remember the occasion, as it occurred last meeting, it is not at all my idea that this part of the work was to be eliminated. At that time there was some discussion of dividing the meeting into two sections for the purpose of facilitating the work, something on the same line as the American Pharmaceutical Association. But I do not think it was in anybody's mind, so far as I know, that this part of the work was to be omitted. It is the work on Pharmacy and Queries we have done, and the papers of the committee, that have given us what standing we have and brought what little reputation we have outside the State. It seems to me a grievous thing if we are to fall into that error. If I am mistaken in the idea I have, I would like to be corrected, and would be glad to hear from the members of the Association.

Mr. Eberbach—The discussion of the question was quite an animated one for a time and took up considerable attention of the Association, but I am laboring under the impression that it was not the intention of the Association to abandon that part of the work in any of its phases—not necessarily to abandon it—but that the question was at the disposal of the Association. I would like to hear from the Secretary on

the subject, as he was one of the members of the Association to take up this question.

Secretary—I can add nothing more, can only reiterate the sentiment expressed by the President. I was the one who instigated that little "row," through the paper on Organization—but I got very little support—the support was on the other side of the question. I regret that any misunderstanding should have resulted from the free discussion which followed the reading of my paper. This discussion continued to considerable extent. It appeared to be the feeling of the majority that papers on scientific subjects were of great interest and importance in keeping up a lively interest in the meetings.

President—We have been somewhat informal in proceeding without a motion, but I thought it wise to let the discussion go on for a while. Article 2 of the Constitution clearly covers the question at issue, and until some action to the contrary is taken I think the Association will consider the scientific work a part of its mission in the future as it has in the past.

President—Next comes the report of the Legislation Committee.

Chairman Webber reads the report of the Committee on Legislation.

#### REPORT OF LEGISLATION COMMITTEE.

To The Michigan Pharmaceutical Association:

Gentlemen—Your Committee on Legislation, to whom is referred the duty of looking after all matters of legislation affecting the pharmacists of this State, beg leave to submit for your consideration the following report:

We feel like praising God, from whom all blessings flow, that the trials and vicissitudes of another session of our Legislature have passed, and we are now permitted to breathe freely for another two years. We feel that we have cause both for congratulation and regret, congratulation over the fact that no bill was passed directly affecting the interests of the retail druggists, and regret that the pharmacy bill, better known as the Milliken bill, failed to become a law.

The history of legislation during the recent session is no doubt familiar to most of you, but a detailed statement at this time from your committee may be of value in impressing upon the Association the necessity of providing a permanent legislative fund, so that we may at all times be ready for any emergency that may arise, and for taking such steps as you may deem necessary in preparing and having passed a bill similar to the Milliken bill at the next meeting of the Legislature. In all, there were three bills introduced during the recent session of the Legislature directly affecting the interests of the retail druggists. First, and the most important, was the Five Hundred Dollar License bill. You are all well aware, if it had passed, it would have imposed a fine of \$500 upon every druggist in the State, if they continued the purchase and sale of spirituous or malt liquors aside from alcohol. Its

provisions, if carried out, would have brought disaster to many of the smaller druggists throughout the State, but more particularly in the larger cities, owing to the fact that a few of the larger and more prominent stores could afford to take out the license and naturally would get the legitimate liquor trade of the city, and with it a large percentage of the trade that was formerly controlled by the suburban druggists. In proof of this, we have evidence to show that Senator Flood received letters from a number of the more prominent druggists in several of the larger cities, asking and urging its passage. Nineteenth of the country druggists would not, and could not, pay this large amount unless they were willing to make saloons of their drug stores, and this but a small percentage would wish to do, and by not so doing a considerable amount of profitable and legitimate trade would be lost. It would seem that a bill so extreme, unjust, and unreasonable, would have very little to commend it and would naturally die of its own weakness, but it was upheld and supported by a combination decidedly unique in its character. Two factions, diametrically opposed in every way, asking and working for its passage, viz., the saloonkeepers and the Anti-Saloon League. The active and aggressive work being done by the Anti-Saloon League, backed by the saloonkeeper. Now, just think of it, an organization being helped by the very men they were sworn to destroy. The radical temperance cranks and the saloonkeepers joining their forces for the purpose of destroying the half-starved druggists of the State of Michigan. Now, these statements may seem overdrawn, but Mr. Bland, the secretary of the Anti-Saloon League, in public addresses throughout the State, acknowledged that this was a fact, and it seemed to amuse him exceedingly as well as the radical temperance people whom he addressed. This same organization not only assumed proprietorship of the Flood bill, Humphry bill and Nevans bill, but intimated that the Milliken bill was of their making, when it is a well-known fact that the league put forth no special effort in its behalf, and only came to its support by simply acknowledging its worth when all other bills had been killed.

The Humphry bill that passed both Houses and has now become a law, is only applicable to local option counties, and then only by the vote of the majority of the voters of the county. Your committee did not consider that the features of this bill were objectionable enough to demand active opposition, inasmuch as it was left for the people of each local option county to vote upon. It was essentially a local matter, and we felt that we, as a committee representing a State organization, had no right to interfere in any way. The Nevans bill was a House bill and developed considerable strength, so much so that Mr. Nevans managed to have it pass the committee of the whole eight weeks before adjournment, but for reasons best known to himself, he never called it up under the third reading. This bill was modeled after the Humphry bill, differing only in this respect, that it was made applicable to the entire State. Its main features consisted in requiring each druggist to keep a correct account of all liquors purchased, as well as all sales, and to make a sworn affidavit of same to the county clerk once a week, and he was obliged to keep same on file for public inspection, and furthermore, no sales were to be made without the written prescription from a regular M. D., and in no case was a prescription allowed to be repeated. Your committee felt that its passage would bring unwarranted hardship upon the honest druggist who would try to live up to its requirements, while it was framed in such

a weak and unbusinesslike way, that the saloon druggist, the one it ostensibly aimed at, could in various ways violate its provisions and do a regular retail liquor business without laying himself liable before the law. For the above reasons, we felt called upon to oppose its passage in behalf of this Association and the law-abiding druggists of the State.

In answer to the charge made in the Detroit and Grand Rapids papers, that the druggists of the State had raised a fund of three thousand dollars for the purpose of influencing legislation in its behalf, we simply present to you our financial report, substantiated by the secretary and treasurer of this Association. There was raised, all told, for legislative purposes, one hundred and ninety-eight dollars. The total expenses of your committee, including printing, postage, telegrams and telephones amounts to one hundred and nineteen dollars and sixty-eight cents. The members of your committee at different times made something like six or seven trips to Lansing, and in addition to this, Mr. Gundrum, Mr. Eberbach and Mr. Mann made a trip at our expense, so we are perfectly willing to leave it to your judgment as to the amount that was expended in influencing votes by giving champagne suppers or buying cigars, etc., etc. If money was used by anyone aside from the one hundred and sixteen dollars referred to, your committee is not in any way conversant with the facts. We are of the opinion that if we had introduced the Milliken bill earlier in the session, and had been aggressive rather than on the defensive, we would have passed it without trouble, but inasmuch as this did not seem to be the desire of the Association as outlined in special meeting held in Detroit, we naturally, so far as possible, carried out what we believed to be their wishes in the matter, and worked on the defensive.

We would recommend for your consideration that the matter of framing another bill similar to the Milliken bill, be left in the hands of a new legislative or a special committee with instructions to bring in a report at our next annual meeting, so that this Association will have time to give it due consideration, and provide ways and means for its passage through the next legislature. We feel confident that unless this Association and the law-abiding druggists of the State, take this matter in their own hands and manifest an earnest desire to do something to remedy the evil that is bringing disgrace upon the profession of pharmacy in the State, that some bill possessing all the obnoxious and unjust features of the Flood bill or worse, will be passed by some future legislature, and we earnestly urge upon this meeting to provide ways and means for the passage of a suitable bill that will place us in a position that will free us from unjust criticism and insure us protection against the idiosyncrasies of every new legislator who imagines that the perpetuity of this government depends upon a radical change in existing laws. We would also recommend that resolutions of thanks be extended by this Association, to Senators J. W. Milliken, Ward and Hon. L. A. Goodrich for the faithful work they did in helping to defeat bills detrimental to the best interests of the law-abiding druggists of this State. We also desire to express our thanks to Mr. Mann, Mr. Gundrum, Mr. Eberbach and all those who in any way assisted us in our work. We also feel thankful to the Detroit Pharmaceutical Association for the interest they manifested, and the help they gave us at the critical time.

Respectfully submitted,

A. H. WEBBER,

H. J. BROWN.

(Applause.)

President—You have heard the report. What is your pleasure in regard to it?

Secretary—I move that the report be accepted.

Mr. Schumacher—It ought to be referred to a committee for discussion. I move this as an amendment.

Amendment accepted.

President—You have heard the motion, gentlemen, and amendment, what is your pleasure?

Member—I think we ought to take final action upon this report.

Mr. Parker—If the argument of the question comes up we should discuss the subject quite fully before taking action as to whether anything further can be suggested. The matter is important to us, is more important than we had expected it to be, and from the conduct of the legislative body it has become apparent that more action is demanded than has been taken; and so I suggest that our matters be considered and brought before the legislative body in proper manner, and not trust to any haphazard way. I want to suggest that in this connection we have a large committee, comprising practically the strength of the Association; members of the Association that are likely to take an active part, that are likely to command the respect of the legislators, who will have the matter in hand and be on the spot when legislation is needed, and ready to pay traveling expenses, because legislation cannot be secured unless it appears that important interests are involved. So I suggest that we do not leave this meeting without providing at least twenty-five members of the Association to be charged with this important work.

Mr. Eberbach—I think we ought to let this matter rest at the point where the committee has gone, and put it into the hands of the committee for next year.

Secretary—It appears to me that it will not be out of order to bring up this matter at a later time, and I do not see why we cannot accept the report, and make the recommendations embodied in this report to the newly elected committee.

Mr. President—That would be too late for this meeting.

Mr. Schumacher—My idea is that these recommendations be laid before the new legislative committee as material to work on, and the

new legislative committee will report at the next meeting. We are simply starting in early, and getting material for the new committee.

President presents motion, which is carried.

Mr. Schumacher—I would like to ask a question as to the advisability of enlarging the legislative committee. We have seen that it is an extremely important committee. It would seem that this committee ought to be quadrupled—that we should amend the constitution to that effect.

Secretary—I disagree with the last speaker on this point. I believe that a committee of three can accomplish more than a committee of twelve. We have never had a better demonstration of it than we had during the last session of the legislature. The work done by the committee has been the best that we have had, and while I have the floor, I move that the Association extend a special vote of thanks to the Committee on Legislation for the excellent results obtained, and the able manner in which it discharged all its duties during the present year.

Motion supported and carried.

President—I would like to say that I agree with Mr. Mann that a small committee can do better work than a large committee. Of course the members of the committee feel at liberty to call on other members of the Association, and there are few members of the Association who would not respond, and I think it makes a bad impression on the legislators to see a large lobby of men down there to influence that body. I think one of the secrets of our success lies in the fact that we sent a small number to the session. I do not know that an increase to five or six would be an excessively large number.

Dr. Lyons—I concur in the idea of the secretary. I think a committee of three, when interested, feeling the responsibility personally on them, will be more apt to find time to take care of a matter left with them. If the committee at any time needs help because of one falling out or on account of sickness, I do not think there would be any trouble in acquiring all the help they need. I think a member called upon for that important business would report just as readily as if a member of the committee.

Mr. Webber—I believe that a large committee could not work as effectively as a smaller one. I do not think if there were a large committee there would be more than three in Lansing at any one time. Now this matter, in order to accomplish success in it, ought to be done by two or three who could give it their individual attention and call upon other members if necessary.

President—The next thing in order is the report of the Committee on Adulteration. Have you the report, Mr. Secretary?

Secretary—I have none, Mr. President.

President—The next thing is the report of the Special Committee on Revision of Pharmacy Law.

Mr. Eberbach—The report was accepted at the special meeting of the Association last winter, and handed over to committee having charge of the legislative business.

President—Next is the report of the Committee on Mutual Manufacturing, by Chairman Walker, of Detroit.

Report read by A. L. Walker.

#### REPORT OF SPECIAL COMMITTEE ON MUTUAL MANUFACTURING.

Detroit, Mich., August 15, 1899.

Mr. President and Gentlemen of the Association:

Your Special Committee on Investigation of Mutual Manufacturing desire to submit the following report: According to our best judgment and belief, based upon our investigations and observations, all schemes of mutual manufactory are, so far as the M. S. P. A. is concerned, impracticable. All schemes of mutual manufacturing known to us could not possibly benefit anyone but the retailer and would do the manufacturer and jobber a positive injury. The M. S. P. A. was not organized nor has it been maintained a retail druggist association, and it is the belief of this committee that it should not have been organized or maintained a retail druggists' association. Therefore we do not believe this Association should consider for adoption any plan of mutual manufacturing.

If successful at all, mutual manufacturing could only be made so by an association whose members belonged to one class whose interests would be mutual and would be promoted by working together. An association whose members would be as ambitious to promote the interests of their neighbors as their own, and one into whose makeup would enter no element of jealousy.

We believe our time and energy could be more profitably employed in other directions.

The U. S. Pharmacal Company, of Chicago; the Pharmacists' Cigar Company, of Detroit, and similar concerns we regard as business enterprises, the merits of whose goods and business methods the individual buyer must decide for himself, whether more advantageous to him than those of other concerns.

Respectfully submitted,

ALFRED L. WALKER,

GEO. J. WARD.

President—You have heard the report of the committee. What is your pleasure in regard to it?

Mr. Webber—I move that the report be accepted.

President—The motion is made that the report be accepted.

Motion carried.

Secretary—I have two telegrams just received. One from E. F. Phillips, stating: "Sick in bed; with you in spirit. Accept best wishes for pleasant and successful meeting." The other from the Druggists' Circular: "Accept our compliments and best wishes for a successful meeting."

(Arrival of Prof. Stevens greeted with vigorous hand-clapping.)

President—We had just passed the report of Prof. Stevens, as Chairman of the Committee on Adulteration.

Prof. Stevens—I think you were very wise in passing it. I think that committee has no report. I requested that my name should not be placed on any committee, as I had all the work I could attend to, but I find that I was placed on the committee. So I did not feel under obligations to go and do the work. It is like this: I started out with the idea of making a record on adulterations, but got no time to do special work on that line myself. After further consideration I made up my mind that such a report would not be specially valuable to those interested in pharmacy, as there are works on the subject already published, and it would only be second-hand matter, so I omitted the report. I have not had notice from members of the Association of anything that was adulterated, and have had nothing from them to analyze. Now the Association has not heretofore had interest enough in adulteration to even send me a sample to make a report on, or to help the committee in any way. Therefore I think the Association is not especially interested in the subject.

President—I think there is a great deal of force in the remarks of Prof. Stevens in our members not taking interest enough to send samples.

Prof. Stevens—I might say that before now I had spent quite a little money trying to get samples—and I thought that if the Association did not care to send samples I did not care to buy any more.

President—If we have nothing further we will adjourn.

Mr. Jenks—Before adjourning I wish to request all the members to visit the prison, and to state that the starting point will be the Hibbard House, where carriages will be in waiting.

President—A motion to adjourn will be in order.

Adjourned to meet at 7:30 p. m.



THIRD SESSION.

Wednesday, August 16, 8:15 p. m.

Meeting called to order by the President.

President—The first item in order is the report of delegates. Are there any reports, Mr. Secretary?

Secretary—We have a number of delegates that ought to report, but I do not know that any of the chairmen are here. Dr. Lyons was a delegate to the American Pharmaceutical Association; he may have something to report.

Dr. Lyons—I have no formal report to make any further than the statement that an enthusiastic meeting was held at Baltimore. Of course reports have been published of the proceedings of that convention. What I wish to say is that the meeting was one, although held under the disadvantage of exceedingly hot weather, that encouraged me very much in the idea that the retail trade had here a means of holding together. And considerable time of the American Pharmaceutical Association was given to the commercial section. The several sections held meetings that were equally interesting and enthusiastic, but if any preference is to be given to anything, anything to be said in favor of one over another it should be said that the interest was greater in the commercial section than in any other division of convention. Two sessions of the convention were devoted to trade interests and the time fully occupied. There were very able papers at the educational and legislative sections where there were exceedingly interesting meetings. All along the line there was activity, and it was observable that the men active on commercial lines were the same men who were active on scientific lines.

President—Prof. Stevens, did you attend this meeting?

Prof. Stevens—I did. But I have nothing to add to the report that has already been given.

President—Next is the report of the Indiana Pharmaceutical Association—Mr. Westervelt, delegate.

Mr. Westervelt—I attended the meeting of the Indiana Association, but was not aware that I was appointed a delegate. The meeting was a spirited one, but I do not know of anything of special interest to relate at this time.

President—Mr. Prall, I think you attended the meeting of the National Association, did you not?

Mr. Prall—I did not look upon myself as being a delegate of this Association; was not notified, and did not go prepared to act as a delegate. But I am familiar with the work, because I was appointed to an office of the Association. That meeting was called by the Chicago druggists at the same time as that of the Wholesalers and Proprietors, and in the same place. The Saginaw Pharmaceutical Association requested me to attend as its delegate. I had not much faith in the organization of retail druggists and told them so, but was willing to go if they wished. I said that if we did not make an effort to organize, we never would be organized. I was agreeably surprised. There were men there interested in the retail trade who seem able to accomplish something, and more than I had supposed would be in attendance. As soon as organized we appointed an executive committee of five, of which I was one, and we sent resolutions first to the Wholesalers and then to the Proprietors' Associations, and a great many resolutions were passed, but the executive committee confined their work practically to regulating the distribution of goods and the requesting that the prices be what we thought a proper ratio to the retail prices. Now, I don't know how familiar you are with the work of the Association since last October, but a great deal has been accomplished. We have good men at the head, and are in close touch with the retailers. It has been the aim of the Association all the time to do its work in such a way that it would be a lasting benefit. The executive committee had one session in February in Chicago, lasting four days, and we met there the Proprietary Committee of Legislation of the N. W. D. A. The Proprietors' Association holds two annual meetings, one in June and one in the fall. These people when they have grievances, have leaders of influence and strong force to introduce and get their resolutions passed, and that is what the retailers have got to have. We have got to have these people on our side. When we met at St. Louis it was arranged that the other two organizations would meet at the same time and place as the N. A. R. D. this year, but when the committee met at Chicago we passed a resolution to meet at Cincinnati a week earlier, so that if we had anything to communicate we could send it to these associations at Old Point Comfort. Their associations meet the last week in October, ours a week earlier. About 32 State Associations have identified themselves with the National Retailers' Association. I made a trip to Chicago last week, and met the secretary and others interested. We find that, as we felt in the beginning, we need more local Associations, and it seems to me the way to accomplish this is to have financial backing. This is only my idea of it. It seems to me important to have financial backing in order to enable us to send a man into the States to assist in working up local organization. Fortunately in Saginaw we have an organization. I know how difficult it is for the

trade in a city to get up an organization for itself. I think it would be a great deal easier for a man with proper credentials and ability to help organize, but that takes money, as you know. I think it very important that this Association be connected with the work of the National Association, and I think that we should pass a resolution that we show our sympathy with them and indicate our support, and that should be followed up with faithful work by the druggists of our State. Those who come to our meetings we know have an interest in the Association and the whole trade at heart, but we have got to follow this up with work. It seems to me in line to circulate these truths to every druggist in Michigan so that when we go to the meeting in October we may have what financial aid we may be able to procure. Wisconsin Association had a meeting last week or the week before and gave some financial assistance then and there. I think you will agree with me when you look over the magnitude of the work, that one year is not very much in which to expect results and I think our results are favorable for the length of time we have had to accomplish them. The second year I expect very much greater benefits, but we have got a lot of hard work to do, and it is along the line of organization and financial assistance.

President—Mr. Secretary, I believe you were also in attendance at the meeting; have you anything to add to what has been said?

Secretary—I do not know that I care to supplement anything the gentleman has said on the subject. It has occurred to me, however, that for the benefit of the members who contributed to send delegates to the National Wholesale Druggists' and Proprietary Associations' meetings I might suggest that something might be said as to what they were able to or rather not able to accomplish.

They were received very cordially by the Wholesale Druggists' Convention, but when the question of the "Sourwine" plan came up the chairman of the Proprietary Committee stated that the plan had been laid before the attorney of the Association and that certain legal difficulties had presented themselves which would be hard to remove, and consequently any action on the plan had been dropped entirely. Neither of the delegates was given an opportunity to talk before the conventions. However, both delegates, being also delegates to the N. A. R. D., their efforts were not entirely fruitless.

President—This finishes the reports of the delegates. Unless some member desires to make a motion or offer a resolution, we can do nothing more than thank the gentlemen for the very interesting reports they have given us.

The next thing in order is the reading of papers. Are there any papers to be presented?

Mr. Kidder—I have a paper upon organization, and if you desire, I will present it.

Mr. Kidder reads his paper.

#### ORGANIZATION.

The actual and distressing need of universal, thorough and practical organization has never been more apparent and imperative than it is to-day in the retail drug business. Our attendance here to-day is small and represents but parts of the State, and those widely scattered; we have no authority to act for those not present and we do not even know, to a certainty, what they really want us to do. The day of the department store is at hand, and our business and profession are in jeopardy. Unless your postmaster, express agent and freight agent "put you on" or keep you posted, little do you know, or realize, of the vast amount of our business that is being done by it; but there is scarcely a town or village in this State but whose inhabitants are daily contributing to the support of the department store by the purchase of drugs and druggists' sundries through the use of the mails and express companies, and the monster gains and grows momentarily; surely but silently it is eating into the very vitals of trade, and if we do not organize and protect ourselves now, as we ought to, and while we have a chance to, my friends, the time will come, and it is not far distant, either, when our business shall entirely pass into its hands and we shall be compelled to relinquish the profession in which we have invested our talents and to which we have devoted the priceless years of our lives in study and care and responsibility, only to become its hired mechanical clerk—and all simply because we have neglected the duty of organization and self-protection in the time when the opportunity was ripe for it.

The law is now on our side, the people are now on our side and, indeed, there are none against us, to speak of, but the department stores (and a few nice friends like the Cuticura people); yet alas! "Sufficient unto the day is the evil thereof." We shall have our hands full with this one enemy alone. With its grip of greed, it despises and ignores the laws of equity and justice and exactly reverses the Golden Rule; it presumes not to care whether we are learned and skilled or ignorant and careless; it recognizes not the cost of preparation for a life of responsibility, and it renders valueless and sets at naught the learning and the skill and the services of the schools and colleges of pharmacy in our land. In this respect it is an enemy and a menace to the safety of the public and it laughs and scoffs and sneers at intelligent, trained and skilled public service. It has no business to handle drugs; that business is a profession and belongs only to those who have made it a careful study and whose stock in trade is not all piled upon the shelves of their stores or displayed in their mammoth windows, but invested as well in years of study and preparation for the careful sale of poisonous and dangerous drugs and for the safety and protection of the public health, and whose capital is brains as well as goods. I repeat that the drug business is a profession and belongs only to the registered pharmacists of this republic, but once the department store gets in possession of it, nothing short of anarchy will ever cause it to let go again. In the city of Chicago to-day there

is being reared a building higher than the highest now standing there. I will not advertise it further here and now except to say that it will be occupied by one of these, our enemies, whose tentacles of greed and avarice reach out through the mails and express companies, even now to the very doors of the customers of every man who sits in this assembly! Friends, I tell you it is about time that we did something to stop this monster of greed from meddling with our business, and it is time it was done quickly, too. It is high time to wake up and find out what we don't know—where 'tis folly to be ignorant 'twere better to be wise. I'll venture to say that a whole lot more than half of us actually don't know how much business is being done right in our own towns by these same department stores, let alone what they are doing in their own cities, and I tell you further, if you don't take pains to find out about it, you will never know until it is too late to stop it.

As the worthy secretary of the National Association so forcibly puts it, "We are like a great giant, who, pitifully unconscious and unmindful of his vast strength, allows himself to be treated as a child." We have the power to control the situation now, if we would only use it. The reason we have not used it is because we are in the same condition that people were in before the days of steam and electricity—they had the power, plenty of it, but they did not use it; they did not know how to apply it. And that is just what is the matter with us. Then it is plain our duty to-day lies in the application of the power we already have. This fact the National Association of Retail Druggists is aptly demonstrating, and it remains for us simply to "keep up steam," to develop more power, to do our duty individually. "In unity there is strength," therefore let us get together, form associations in every section of the country and transmit the accumulated power to the central station—the National Association. Let us form a small or local association in every county in this State; therein—and in no other way, it is my opinion—we shall reach every druggist who is too poor, too busy, or too negligent to come here or to go any great distance from his store to a meeting; therein we shall get acquainted; obtain his support, teach the lesson of co-operation and combination, the essential laws of true progress to-day, and dispel the old and false doctrine that "competition is the life of trade" in a business which is half profession. It is too much like the old story of the boys stoning the frogs—fun for the boys (and the people) for a little while, but death to the frogs. Competition, however, like everything else, is of two kinds—healthy and unhealthy, honest and dishonest; it may have been, as it has often been called (but I doubt it), the "life" of trade, but it surely has been in our trade the death of many a tradesman and of his business, much to the satisfaction and engorgement of the department store. It is no longer called the "life" of trade by men who are large enough and wise enough to see its true, real and final effect. It is far too often born of selfishness and grows on into adulteration and substitution. Competition of the kind that kills legitimate trade will do well enough for department stores, where the clerks are largely girls who ought to be in school and where the rankest kind of substitution is daily practiced upon a people half blind to their own interests; but it should not and must not be fostered by a professional class of merchants who devote both time and money to become skilled in the preparation and careful sale of medicine for sick and suffering humanity.

Our business is a dangerous one. A single careless or accidental

act may cause death and suffering and forever ruin the business reputation of the pharmacist. Not so with the department stores. Let them compete for the low price and substitute and furnish shoddy and inferior goods, but let us compete for the high quality and careful service. Let us set a standard price and then let us compete to furnish the best article, the finest material, the highest quality, and the most careful service for that price—that's the kind of competition the old man meant when he said it was the "life" of trade.

Co-operation is the power we must use to obtain success and to climb to prosperity, not by attempting to drag and keep down our fellows, but by adding them and being in turn added by them, thus combining and multiplying the power of all, instead of wasting a large part against each other. A house divided against itself cannot stand.

The work of organization is now going on everywhere in this country and in every kind of business. Organization and united effort are now acknowledged to be the genuine principles of success, and a great step toward prosperity is gained when any community shows its desire to act in concert.

Having a profession, as well as a business, we ought to be the most prosperous class of merchants in America to-day, instead of the petty set of advertised robbers we are said to be by the cutters and department stores. The public have been sadly misinformed about our business and our supposed 500 per cent profits. They have heard, but heard and forgotten, about one-half the whole truth. Everybody, except druggists themselves, thinks there is "lots of money" in the retail drug business to-day. Why? Because no two retail druggists in the same locality have the same prices for the same identical goods, and the public have "guessed" from this fact that we can make or dispose of our goods at almost any old price and still make about 500 per cent profit—hence the multitude of people engaged in our business; hence the long hours of service and the inroads of traitors to our profession; hence the special burden yoked to our necks of an internal war revenue tax.

But there is money enough in our business yet to pay us well for the work of organizing it. Let me show you, for instance, one of the legitimate results of the system of organization which I propose: Take, for example, morphine, that soul-destroying, degrading drug, whose sale is a constant menace to the safety of the public—how much do you sell it for—40, 50, maybe 60 cents per vial? In many places in this State it is sold for 40 cents, two for 75, and three for a dollar! What is the sense of it, my friends? Why, if it brought a dollar a vial it wouldn't fully repay us for the danger and disgrace liable always to occur from its sale. Under the proper control of this system of organization it will bring what it ought to bring in every locality where we are not so foolish as to fight instead of help each other.

The real value of an organization depends upon the degree of its completeness, upon the perfection of its details, and to accomplish permanent and beneficial results the entire community must be ready to act in unison. The country places must be reached first, else the sources of supply cannot be kept track of nor controlled. The only way we can ever overcome the cut-rate evil and replace the drug business where it belongs—in the hands of registered pharmacists (unless we form a trust)—is to organize so thoroughly that we can know the exact position and attitude of every man in it, in regard to this question, and can know and control all sources of supply with

promptness and accuracy. We must form small or local associations in every competing locality. From them delegates should be sent to the State and National Associations which will then represent the whole and not a few scattering parts only of the country and which will then have vested in them authority to act for those not present, as well as to pass resolutions which, at the present time, may never be noticed, much less recognized, by the vast majority; which will then be able to dictate as well as to notify, and to control as well as to advise. Then we won't have to put up with any such slim representation of the great State of Michigan as we have here to-day. Then the patent medicine people whose goods we have sold for them for years and helped to build their fortunes shall not turn on us and say, "You sell my goods because you have to and you can't help yourselves!" My friends, this is no idle talk. Less than one month ago, in the city of Chicago, the proprietor of a patent medicine well known in Michigan told me those very words to my face, and he didn't leave off the emphasis either! I went to see him about this very work of organization and the very first words he said were, "Oh, I don't care anything about the retail druggists!" That wasn't all he said either, but just a sample of the mean, despicable manner in which he treated the subject of organization of the retail drug trade, and, gentlemen, I tell you there is a whole lot more of his ilk who don't care any more about us than he does, only they are most all too mighty wise and shrewd to say it out loud, except a few of our particularly fine friends, like Mr. Hood and the Cuticura people and a few others we all know well. But we don't know who'll be next! If we don't get together and organize pretty soon the way we ought to, my friends, it is my impression we are not going to be in it much longer, that is all! I have had quite a little personal business and experience with some of these fellows during the past few months and I can tell you it is the same old story, with but little variation. Heaven does help those who hustle themselves, but while God feeds the dear little sparrows. He doesn't throw the food right into their nests. They have to hustle to get it and we have got to hustle to get ours. We have all got to get together, stay together and work together if we are going to live together in harmony and prosperity and keep what little belongs to us, instead of becoming the patent medicine proprietors' hired men who work for their board, and the "easy mark" and the standing advertisement of the department stores!

I have developed a system for organizing small local associations which makes it a paying investment for the retail druggist to join and to keep up his interest therein. It has been thoroughly examined, heartily endorsed, and recommended to all retail druggists by the secretary and the Executive Committee of the National Association of Retail Druggists, and I am now having it published in book form. It contains a comprehensive retail price list of all drugs and poisons, in all ordinary salable quantities, and is systematically and suitably arranged for both city and country use. Its use contemplates thorough organization. One of the main ideas of this system is to reach the fellow-druggist who always stays at home—who's there to-day, not by choice, perhaps, but because he can't afford to go so far away and be gone so long; and yet it is true it is often because he thinks it would do him no good if he did go, or because he fancies himself secure from all the evils of the trade, just because none of them have yet appeared in his own locality. This plan will create an association right in his

own county where he will have no excuse for non-attendance, where he cannot even keep out of the way of it, and, in fact, where it will almost compel him to take an interest in it, and once he becomes interested, it is like free masonry—he will soon want another degree.

The plans of procedure are as follows: To approach the retail druggist in his own store upon this question of forming a local association in his county; if he is favorable, present him with a printed slip, like a ballot, with the titles only of the officers of the association thereon, which are: President, vice-president, secretary, treasurer, organizer, inspector and delegate to the State Association. On this slip is also a blank space for the time and place of the first meeting to be held. Let him fill out this slip with the names of the druggists whom he selects for the officers and the time and place when and where he can best go to the first meeting, and sign it, likewise the constitution, by-laws, rules and regulations of the Association. Then review and arrange the price list with him, taking his lowest prices. After seeing every druggist in the county thus, count the ballots and inform them all by personal letters who is elected and when and where the first meeting will be held. Then arrange a complete price list for each member, taking the lowest prices given by any and all members as the maximum scale to be adopted, except such ones in which there may be a great variation, which should be left blank and decided upon at the first meeting. Attend this meeting, complete the list of prices to be adopted, compile a complete blacklist of every member's bad debtors, adopt a private cost mark to be used on all outgoing prescriptions, copies, formulae, receipts, etc., and then you will be better acquainted, you will have a good time, and you will have an Association which will accomplish actual results every day, right in each member's own store, in which the "net returns" will very soon become visible in your own money tills and in which life holds forth some prospects of better times well worth the slight efforts it has cost to form your Association. Best of all, you will have an Association whose influence "works while you sleep," which shall furnish one certain sure representative every time there is a meeting of this State Association. Then you will have a crowd instead of a handful here. They will be clad with the garb of authority and sent here for a purpose other than a good time (as is the case to-day in the opinion of a good many who stay away on that very account), but then they can have that also. Then, if they raise the price on you, \$1.30 per dozen, for instance, or make you pay the war tax—and you are looking—it will only be because your representatives do not know what they are about, nor where they are at! But they won't do it, not on your life they won't, when they know you are organized like that! They say now that a few of you get together and pass a few resolutions and that is all it will amount to; that you are perfectly harmless and that they can just as well make you pay the war tax as not. That is what they say to-day, and you know it, and the worst of it is they believe what they say and they practice what they preach, don't they?

If the county is not large enough to send a delegate to the National Association also, let two or three counties join together and send one, so that every 100 retail druggists in this State shall have one representative in the National Association of Retail Druggists. Then we will be "it" and we can do business at headquarters, as we ought to do.

Realizing that faith without works is dead, I not only advocate this



work of organization, but I am prepared and stand ready to take it up and promote it throughout this State with all my time and energy. My paramount object is to organize the retail drug trade thoroughly and permanently and, given the proper credentials of this Association to enable me to carry out these or any other plans of organization with promptness and efficiency and to awaken the interest of those not present here, I, for one, will undertake to form local Associations in every county in this State and place them upon a practical working basis, without any expense whatever to this Association, my expenses to be paid out of the membership fees which I myself collect and place within the treasury of each local Association formed. I only ask your co-operation, and I submit this proposition to you purely as a matter of important business, and I thank you for your kind and close attention.

(Applause.)

President—Gentlemen, I note that you listened to the very vigorous presentation of this subject with great interest. Whether you are prepared to take any action upon it I do not know, but I will entertain any motion or any remarks.

Secretary—Mr. President, I have listened with great interest to the paper Mr. Kidder has just read and appreciate that it embodies much of considerable importance. I do not believe that we should take any hasty action on it in any manner. It appears to me that our best way of handling it is to refer it to the Executive Committee for report tomorrow morning, and after hearing the report we can bring it before the Association for discussion. I move that this paper be placed in the hands of the Executive Committee.

Motion supported.

President—You have heard the motion, gentlemen. Are there any remarks?

Motion carried, and paper referred.

President—We will now have the report of the Executive Committee on matters previously referred.

Mr. Eberbach reads report.

Your committee reports that it has carefully examined the books and reports of the Secretary and Treasurer and finds them correct in all particulars.

The appeal to our Association by the Western Pennsylvania Retail Druggists' Association, having been duly considered, we recommend to the Michigan State Pharmaceutical Association that it expresses its concurrence and sympathy with the action of the Western Pennsylvania Retail Druggists' Association in their differences with the Potter Drug and Chemical Corporation and the Ripans Chemical Co., and recommend that the members of this Association, so far as possible, give their hearty support, by discouraging the sale of the preparations of said concerns.

Your committee recommends the adoption of the following resolution in support of the National Association of Retail Druggists:

"Whereas, The N. A. R. D. is an association organized and conducted solely for the purpose of securing for the retail drug trade better commercial conditions; be it

"Resolved, That the M. S. P. A. is heartily in sympathy and accord with the N. A. R. D. and thoroughly appreciative of the good work started, and highly commends the progress so far made by its officers; and be it further

"Resolved, That we strongly recommend, to the members of this Association and the retail trade of this State in general, to organize locally in support of the N. A. R. D. in order that it may have the vigorous moral support and the necessary financial strength to consummate its work."

The committee further recommends that this Association send three delegates to the meeting of the N. A. R. D. in Cincinnati in October next. We also recommend that the annual assessment of the M. S. P. A. be paid in to N. A. R. D. before its next meeting.

Respectfully submitted,

OTTMAR EBERBACH,  
A. S. PARKER,  
D. E. PRALL,  
A. L. WALKER,  
A. H. WEBBER.

President—Gentlemen, you have heard the report. What is your pleasure in regard to it?"

Mr. Perry—I make a motion that we adopt the report.

Motion supported.

President—Does anyone desire to be heard on the motion?

Mr. Webber—They are important resolutions. I wish the Association might take them up and discuss them. I cannot say that they are all understood by all the members.

President—You can discuss them under the pending motion.

Secretary requested to read resolution in regard to the **Pennsylvania Association.**

Motion made and seconded that it be adopted.

Motion carried.

Secretary reads next recommendation as to Michigan State **Pharmaceutical Association** being in accord with the N. A. R. D., etc.

President—You have heard the resolution or recommendation of the committee. Any remarks to be made?"

Mr. Eberbach—I think that this resolution is on the same line, and covers the same line of thought and argument as the paper read

this evening. I suggest that it be left to be considered when we consider the paper on organization, because they cover the same ground, and the paper read will have some effect upon the decision of the committee reporting on the resolution.

Dr. Lyons—The same thing was on my mind, and I move that this be laid on the table until the paper read shall be discussed, so that we will not duplicate our work.

Secretary—I do not see where there is anything in this resolution in conflict with the paper on organization. Here is simply a resolution endorsing the N. A. R. D. I believe we ought to dispose of this to-night.

Dr. Lyons—I withdraw the motion, if that is the case.

President—Dr. Lyons having withdrawn his motion, a motion to adopt the report is in order.

Motion made, supported and carried.

President—Is there any general business on your table, Mr. Secretary?

Secretary—There is the report of the Committee on the President's address.

Mr. Webber reads the report of Committee on the President's address.

#### REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS.

Mr. Chairman and Members of the M. S. P. A.:

Your committee begs leave to submit for your consideration the following report: We have carefully considered the President's address and take pleasure in concurring in many of his recommendations in general, but particularly the following: We heartily agree that we have an overabundance of legislation, and we are firmly convinced that the people of the State of Michigan would better rest in peace and contentedness, if the Legislature met but once in ten years. We also agree with his recommendation regarding the advisability of ascertaining the views of prospective candidates for the Legislature, on their ideas upon legislation pertaining to pharmacy, and use our best influence in getting the right men elected to office.

We indorse his recommendation as to the desirability of thorough organization of local Associations, in towns and cities, who will work in harmony with the N. A. R. D.

The question of mutual manufacturing having already been reported on, we offer no suggestions.

We heartily indorse everything the President has said regarding the faithful work of the officers of the Association.

Respectfully submitted,

A. H. WEBBER.

E. J. VAN MARTER,

W. H. BURKE.

President—You have heard the report of the committee. What is your pleasure?"

Motion that the report be accepted and adopted. Carried.

President—Any further reports from committees, Mr. Secretary?

Secretary—There are no other committees to report.

Mr. Schumacher—I wish to bring up a point in regard to the work of the Committee on Legislation. My point is that it is necessary to put a clause in any new bill giving the Board of Pharmacy power to revoke a man's license. My attention was called to a drug store in Detroit, and I was asked if there was a license for that store. I found by careful examination that the party was not in Detroit, but had moved, and still had left his certificate in that place of business, and I demanded that it be removed. The party told me that if I could find anything in our law that would oblige him to remove the certificate he would do it. I got legal counsel on the matter, and the attorney told me that, after having been given notice, he could probably be compelled under the law, as it now is, to remove the certificate, but that it would be better to have a provision made in the law. I want to bring that before the committee.

President—You can offer a resolution. A special committee could be appointed to draw up and offer a resolution to-morrow, to add to the Milligan bill a provision giving the board power under these conditions.

Member—I make a motion to that effect.

President—Does the motion receive support?

Secretary—It seems to me that the question the gentleman has just been speaking of would properly go into the hands of the Legislative Committee elected to-night. And I don't know why we should appoint a special committee to consider this question and report to-morrow. It will be impossible to consult with the Pharmacy Board, as there is but one member of that board here. It will be two years before any action can be taken. We will undoubtedly elect a good Legislative Committee, and that committee can have at least a year within which to consult with the Pharmacy Board, and I would very much prefer that it be left entirely to the committee—with any recommendations desired.

Mr. Schumacher—I will favor such action.

Secretary—I would like to see the gentleman who offered the motion offer a resolution now that the Legislative Committee consider the questions referred to, so that it will be brought up at the next meeting.

Secretary—There is one thing I would like to bring before the Association, if I may—that is with reference to one of the committees of the National Association. I am a member of the Committee on Relations of State Pharmaceutical Education and Laws to the Drug Trade, and would like instructions from this Association as to any reports I am to make to the chairman of that committee. I think as a member of the committee I should say something, provided we have anything to say.

Mr. Perry—Do I understand that this is in connection with the N. A. R. D.?

Secretary—Yes. My object in bringing this up is for information, I am not posted on the question at issue."

After considerable discussion, it developed that it was the general opinion of the members that matters coming under the head of the N. A. R. D. Committee, would best be left for the American Pharmaceutical Association to handle, as there has already been much work done along the same line by that body.

Prof. Stevens—I want to say that from two or three remarks I heard this afternoon I rather inferred that some one intimated that some of those who had dealt in scientific subjects before were feeling a little sore. I want to say that there is not a sorehead in Ann Arbor. Dr. Prescott is at a meeting of another association and is to go to another at Old Point Comfort. I am usually present at the meetings unless I am out of the city. Now, if you do not have scientific papers I shall still continue to come to the meetings, if for no other reason than to see the faces I have seen so many times. I do not feel sore at all. (Applause.)

President—The next thing is the election of officers, and the first officer to be elected is a President. The election is by ballot. Nominations, of course, are in order.

Mr. Webber—I move that the rules be suspended and that the Secretary be authorized to cast a vote for Mr. Eberbach as President of this Association for the coming year.

Motion supported and carried and ballot cast.

Mr. Eberbach—Gentlemen, making speeches is not exactly my hobby. I appreciate very much the confidence of the Association in placing me in this responsible position, and I thank you for the honor.

President—Next, we have to elect three Vice-Presidents. If my memory serves me right, we usually elect three on one ballot.

Tellers appointed and ballots cast and counted.

President—We will listen to the result of the balloting.

Teller—E. J. Van Marter, Jackson, 21; W. H. Burke, Detroit, 6; A. L. Walker, Detroit, 21, are the three receiving the largest number of votes.

President—I will declare these gentlemen elected.

President—The next officer to be elected is a Secretary.

Mr. Webber—We might better ourselves, but it might be a question, therefore I make a motion that we suspend the rules and re-elect the present incumbent.

Secretary—I would like one word before this motion is acted upon. I think the Association is making a mistake. The Association has had a good deal of "Mann" for the last two years, and I think a change desirable. I would like to say further that I will be very glad to relinquish these duties.'

Members—The gentleman is out of order.

President—The motion is that the acting President be instructed to cast the ballot of the Association for Mr. Mann for Secretary for the coming year.

Supported and carried.

The ballot is cast and Mr. Mann is Secretary for the coming year. (Applause.)

President—The next thing in order is the election of a Treasurer. Prepare ballots for election of a Treasurer.

Motion that the rules be suspended and the Secretary be instructed to cast a vote for the election of Mr. J. S. Bennett as Treasurer.

Motion prevailed, and Mr. Bennett so elected Treasurer for coming year.

President—Next is the Executive Committee of five members.

Mr. Webber—It seems to me that time for consideration should be given before we nominate this committee. It is quite essential that the members elected should always be here, and I think that it would be advisable to appoint a committee of three to recommend a committee of five as an Executive Committee of this Association. A committee of three as a nominating committee. I will ask also that they nominate the other committees that this Association is to elect.

Motion supported and carried.

President—We now have five delegates to elect to the American Pharmaceutical Association.

Delegates are elected under suspension of rules, as follows: O. Eberbach, Ann Arbor; Dr. A. B. Lyons, Detroit; Prof. A. B. Stevens, Ann Arbor; Prof. A. B. Prescott, Ann Arbor, and F. E. Westervelt, Grand Rapids.

Mr. Webber—I will ask if the delegates to the N. A. R. D. are elected or to be appointed.

President—That is an association that has come into existence since our by-laws were adopted, and I know of no reason why they should not be elected as well as delegates to the American Pharmaceutical Association, and I will entertain nominations now.

Mr. Webber—I nominate Mr. Brown, of Ann Arbor.

President—It would be impossible for me to attend. Better nominate somebody who can be there.

A. H. Webber, Cadillac; A. S. Parker, Detroit, and D. E. Prall, Saginaw, are nominated as delegates.

Mr. Stevens—I move that the Secretary be instructed to cast a ballot for the names mentioned.

Motion carried.

President—I will appoint the Nominating Committee—Messrs. Webber, Stevens and Prall.

President—The next thing in order is the selecting of the next place of meeting. It is known that we have invitations from St. Joseph, Marquette, and an invitation is on the way from Grand Rapids.

Mr. Bennett—Also an invitation from Lansing. We will be very much pleased to have you meet there next year.

Ballot is taken, resulting as follows: Grand Rapids, 18; Detroit, 7; Lansing, 2.

Secretary—I move that the ballot be made formal.

Motion carried.

President—Next thing is to decide upon the time.

Mr. Eberbach—I move that it be the second week of August.

Supported and carried.

Secretary—There is the question of a local Secretary.

Mr. Schumacher—I nominate Mr. John Muir.

President—The motion is that Mr. John Muir be selected as the local Secretary of the M. S. P. A. at Grand Rapids.

Supported and carried.

Prof. Stevens—I think the Committee on Nominations is ready to report.

Mr. Webber—We have nominated as an Executive Committee, W. D. Church, B. Schrouder, Grand Rapids; E. F. Phillips, Armada; A. S. Parker, Detroit; and A. H. Webber, Cadillac.

Secretary—I move that this part of the report be accepted. They still have to report on the Trade Interests Committee.

Mr. Eberbach—I move that the Secretary be instructed to cast the ballot of the Association for the election of these five nominees to serve as an Executive Committee.

Motion supported and carried.

Mr. Webber—The three members nominated on the Trade Interests Committee are F. W. R. Perry, Detroit; Dr. Geo. J. Ward, St. Clair; E. E. Russell, Jackson.

President—You have heard the report. What is your pleasure in regard to it?

Member—I move that it be adopted and the nominees be declared elected.

Supported and carried.

Secretary—I would like to bring up the matter of the chairmanship of committees again and would like to see action taken giving the Executive Committee and Trade Interests Committee privilege of selecting their own chairmen, instead of adhering to the old-time custom of taking the first name on the committee for chairman. I think the results would be better to leave it to the committees to select their own chairmen.

Mr. Perry—The President would be just as well fitted as anybody to select the chairmen, President of the Association. I make a motion to that effect.

Mr. Eberbach—The one named first might act as presiding officer for the calling together of the members, when they could select a chairman, who would assume the duties of chairman of the committee.

President—There is nothing in the by-laws so far as the first named shall be chairman is concerned. It is only a custom which need not necessarily be followed.



Mr. Webber—I offer a resolution that it is the sense of this meeting that the member first named on an elective committee shall act as chairman in organizing the work of the committee, and that the committee shall proceed then to elect its own chairman.

Motion supported and carried.

Dr. Lyons—We ought to express in a formal way our thanks for our appreciation of the courtesy shown us by the officers of the State Prison. I have prepared the following:

“Resolved, That the hearty thanks of the Michigan State Pharmaceutical Association be tendered to the deputy warden and other officers of the State Prison for the courtesies shown to members of the Association on the occasion of their visit to the prison this afternoon.”

Resolution adopted.

Prof. Stevens—I would like to move that Dr. Lyons be appointed to look over the field and offer resolutions expressing the thanks of the Association to all who have contributed in making our stay here pleasant and this meeting a success.

Supported and carried.

Meeting adjourned to 9 o'clock a. m. to-morrow morning.

#### FOURTH SESSION.

Thursday, August 17, 1899, 9:30 a. m.

Meeting called to order by the President.

President—The first thing on the program is unfinished business.

Secretary—I have two communications from Grand Rapids in viting us to hold our next meeting there, which I will read.

Grand Rapids, Mich., August 10, 1899.

To the Officers and Members of the Michigan State Pharmaceutical Association:

Gentlemen—The Grand Rapids Board of Trade extends a cordial invitation to your body to hold your next annual convention in this city.

The well-known hospitality of the Furniture City will be a guarantee that your visit here, should you decide to come, will be a pleasurable and a profitable one.

Sincerely yours,

AMOS S. MUSSELMAN,  
President.

H. D. C. VAN ASMUS, Secretary.

Grand Rapids, Mich., August 3, 1899.

To the Officers and Members of the Michigan State Pharmaceutical Society:

Gentlemen—At the meeting of the Common Council of this city held last Monday evening, I was instructed by the unanimous vote of that body to present to you an invitation that you hold your next meeting in this city.

It is with more than ordinary pleasure that I extend this invitation to you, and do so expressing the sincere hope that you will favor us with your presence next year. If this city had any keys I would send them by the messenger who brings this from us to you, but as perhaps many of you know, the city is without gates and as a consequence has no keys.

Come, we will make it pleasant for you, not too warm, but just warm enough so that your session will be of both pleasure and profit.

Hoping that I will have the pleasure of knowing that you have accepted this invitation, I am,

Yours very sincerely,

GEORGE R. PERRY,  
Mayor.

President—I suppose that it would be proper that some recognition of the various invitations we have received be expressed by the Secretary—something in the way of a resolution or motion. The invitations of the three that we could not accept, I mean.

Motion to that effect made, supported and carried.

Secretary—Before proceeding I would like to offer the resolutions of thanks presented by Dr. Lyons. The doctor was compelled to leave this evening and requested me to introduce the resolutions in his stead.

“Resolved, That the most hearty thanks of the M. S. P. A. are due, and are hereby tendered, to the Local Secretary, Mr. E. J. Van Marter, for the efficient manner in which he has discharged the onerous duties of his office; to the entire retail drug trade of Jackson; to the Ladies' Reception Committee; to Foote & Jenks, who furnished the carriage drive about the city and who were particularly active in making our stay pleasant; to the Central City Soap Co. for giving our members an opportunity to see the entire process of soap making and its by-product, glycerine, to the officers and members of the City Club, and to all others who in any way aided in making the seventeenth annual meeting of the Association a pronounced success.”

Motion to adopt the resolution unanimously carried.

President—Now, the next thing is the report of the Executive Committee on Mr. Kidder's paper.

Mr. Eberbach reads the report.

To the Officers and Members of the M. S. P. A.:

Your committee submits the following report on Mr. Kidder's paper on Organization: Although realizing the necessity of organization, and believing it to be the only means by which any real and permanent benefit to the drug trade can be accomplished, we do not at this time feel justified in recommending to your honorable body the adoption of any plan which might be considered by some members to be in the nature of an endorsement of a private enterprise.

Respectfully submitted,

O. EBERBACH,  
A. S. PARKER,  
A. H. WEBBER,  
A. L. WALKER.

President—You have heard the report of the Executive Committee. What is your pleasure in regard to it?

Secretary—I move that we accept the report.  
Supported and carried.

Dr. Dorrance—I move that we adopt the report of the committee. There will then be an opportunity for the discussion of endorsing Mr. Kidder's plan, and offering a resolution that he be granted the endorsement asked for.

Motion supported.

President—I don't think that Mr. Kidder asked for an endorsement of his plan.

Mr. Kidder—What I intended to ask for was simply credentials. So far as the enterprise is concerned, it stands like this—we all know that it takes money to put a man in the field. I do not ask you to assume any responsibility, but expect you to furnish me credentials to go out, and I think I can see my way clear to carry out the plan with your assistance. If you do not see fit to encourage it, I shall not see fit to go on with it. If I can see any way to make a few dollars, that is anything anybody is at liberty to do.

President—Just how do you expect to get compensation for your time and trouble?

Mr. Kidder—Through the sale of my book. I simply get my expenses paid out of the local Association, and expect to make the sale of the book pay me.

President—Is the book published yet?

Mr. Kidder—No, sir, it is not published yet. It will probably sell for \$1, \$1.25 or \$1.50.

Prof. Stevens—I think all of us are convinced that it is of interest to the M. S. P. A. to have local organization and we would have to have some one to represent us. Now, suppose we are in favor of organizing. How are we going to accomplish it with no funds? But suppose we have, we would naturally have to endorse a man so send out. Now, all Mr. Kidder asks is the endorsement of the Association to that extent, so that he may represent some authority, so that he can go ahead with some sort of encouragement at least; I do not see anything we can object to in this. I think we ought to encourage him in this, and that it will help the work along.

President—Do I understand you have organized some counties?

Mr. Kidder—I was very successful in Huron county and worked in Sanilac and Tuscola counties, but have had to simply give it up because I could not take care of it and attend to my business. Huron county was organized two years ago this month, and it does not begin to be as thoroughly organized as if I could go over it now, because I had not then the experience that I now have.

Mr. Webber—Does any part of the fee paid by members to local organizations go to Mr. Kidder?

Mr. Kidder—It would be paid into the treasury of the local association and the Treasurer pays my expenses if there are funds. If not, I pay them out of my own pocket.

Mr. Webber—I understand, then, that you expect to get your expenses out of the local organization, and whatever you make selling your book, that is your compensation.

Mr. Kidder—That is it.

Mr. Webber—What security have we that this will be organized in just the way represented. This thing might be done entirely different later on, and the same endorsement be used.

Mr. Kidder—You can leave these things in the hands of your executive committee, and they will be entirely under your control."

Mr. Eberbach reads Mr. Kidder's recommendation from the National Association.

Mr. Eberbach—It was omitted when I made the report to emphasize the point that we urge on all the members of the Association, so far as is in our power, to give Mr. Kidder hearty support in his enterprise. I think the enterprise could not be anything else than beneficial. I think it is the starting point of the organization of local associations in Michigan.

Mr. Webber—Do I understand you that you intend to take this matter up at the National meeting?

Dr. Dorrance—So far as it is material—the point is that we give him credentials to the effect that his plan is a good one, and I think it is. He simply wants credentials that his plan is a good one. I offer as an amendment to the motion before the house, that the President and Secretary of this Association be and are hereby authorized to issue credentials to Samuel Kidder, Jr., indicating that this Association approves of his proposition to organize County Associations throughout the State, and also to solicit memberships for the State Association; and further, that the above named officers are authorized to revoke the credentials at their discretion.

Amendment supported.

President—Gentlemen, you have heard the amendment; are there any further remarks?

Secretary—I would like to say a few words along the line of organization. I have given the question as much thought, perhaps, as anybody in the Association. I will say that I know that we have got to be more thoroughly organized to accomplish anything, and I advocate a large and strong membership committee, selecting one man from each county, and perhaps two men from some, who, with the Secretary of the Association, would make a supreme effort to increase the membership. I appreciate the fact that much more can be done by personal solicitation than by mail. But as I understand Mr. Kidder, his plan is simply to organize local associations and let them in turn send delegates to the State Association, which would not increase the support of the State Association numerically. We have now about the same membership we had a year ago. We have 283 members now. Out of these I do not believe that more than 200 are proprietors of drug stores; 83 of that number, at least, are jobbers, traveling men and others directly or indirectly interested in pharmacy. If we want to maintain the State Association we have got to increase the membership.

The State Association needs bracing up. If Mr. Kidder will go into the field to do this, together with his plan of organizing, and when he secures a member for a local organization secure him also for the State Association. I will be very heartily in favor letting him go ahead. It is possible that my plan of strengthening the State Association would add more strength to the State organization than his. It would have to be worked on continuously during the year. I would make the Secretary practically chairman of this committee. I would have the Secretary write every member from time to time as to his

progress, and constantly keep a dinging at him. This will perhaps get us an increase of members.

Mr. Schunnacher—I think the Secretary is entirely off the track. I think that Mr. Kidder's plan is one to strengthen the Association. I cannot see where the local organization will interfere with our meetings. I think the plan to organize locally would strengthen the cause.

Mr. Eberbach—The Secretary has presented his ideas in conversation before, and I always looked upon them favorably. I think it is one way we can make an attempt to secure success by having local committees all over the State, who could do very effective work for the Secretary better than by trying to reach druggists by circular letter. Both plans could be united and I can hardly see how they could fail to give results that would be satisfactory. If we have local committees appointed it would be a good starting point for Mr. Kidder, to have some member on the ground to work with, and I think it would go further than indorsements or credentials of associations.

President—Did we not a number of years ago do something of this sort? I have an indistinct recollection of doing something of this sort, and I remember of having been on a committee for county organization.

Mr. Eberbach—The President is correct. The committees were appointed and that was the end of it.

Secretary—We have got in some way to come in personal contact with the druggists of this State. I do not see why we cannot work with Mr. Kidder in this matter, and appoint the committee I suggest and let Mr. Kidder go through the State and work with this committee. I know that we can get practically every retail druggist into the Association if we only go through the State and get at them personally.

Mr. Jenks—I would like to remark that I took quite a little interest in this meeting and pride in having a large number here, because of its being held in our city, and have urged druggists to come, during my visits to a large number of cities during the year. But the small number here shows that it has got to be something in the nature of dollars and cents in order to bring retail druggists into the State organization.

Mr. Kidder—It would be rather a difficult thing to do, to solicit members for the State Association when working for local organization, but I will do whatever I can; only that is not a part of the bargain; I am simply going to work for the State Association when it comes in my way to do it.

President—If there are no further remarks, we will now vote on the amendment.

Carried.

Original motion as amended.

Carried.

Mr. Webber—I move that the Secretary and President of this organization be appointed a committee to organize the State, giving them power to appoint a committee as outlined by the Secretary, with full instructions for that purpose.

Mr. Schumacher—I move to amend that there be at least one member for each county, and where there are large cities an additional member.

Amendment accepted

Motion carried.

President—Gentlemen, it is with pleasure that I am ready to announce to you that the business of this meeting is about to be brought to a close, as the Secretary informs me that everything on his table has been disposed of. Before it comes to a close it becomes my duty and pleasure to introduce to you the presiding officer for the coming year, one of my competitors for the past twenty years, and one we all know and respect, and I am sure that as an officer of this Association he will prove worthy of the trust imposed in him, and his interest in the Association for the seventeen years it has been organized is sufficient proof that he will give ample time and attention to its welfare. I take pleasure in introducing Mr. Eberbach, and in asking him to assume the chair. (Applause.)

Mr. Eberbach takes the chair.

Mr. Eberbach—Gentlemen of the Association: I appreciate the honor conferred on me in being called to take charge of the affairs of the Association for the coming year, and I think I fully comprehend the situation so far as I am personally concerned, and will endeavor to do what is in my power to further the interests of the Association, and in the conduct of the affairs of the Association I want your hearty support, as I realize that it is not possible for me to accomplish much without it—we must all work together.

Mr. Parker—I may supplement what the President has said as next presiding officer of this Association, that the President can do but little without the help of the members. If every member will attend the next meeting and bring at least one more member to the Association it will be a very successful meeting. Numbers create enthusiasm.

I do hope that everybody here will be at the next meeting and bring others with him.

Retiring President—Mr. President: I meant to have said before I stepped from the platform, that I thank the members present here for their very kind consideration during my occupancy of the chair in place of Mr. Sourwine, as I have no doubt he would do were he here. I would like to introduce a resolution which I have drafted, and which does not altogether suit me, as the expression of appreciation which I am sure we all feel on the occasion:

"Resolved, That the absence of Dr. A. B. Prescott from this meeting of the Association is sincerely regretted; we have greatly missed the genial presence of him whose practical wisdom, inspiring example and kindly spirit have been as a guiding star to this Association since its organization, and we express the hope that he will be with us at all future meetings of the Association for many years to come."

Mr. Parker—I move to amend the resolutions by wiring the regrets of the Association to Prof. Prescott that he is not present at the meeting.

Amendment accepted and motion carried.

Mr. Perry—I offer the following resolution:

"Resolved, That our Committee on Pharmacy and Queries, for the coming year, be requested to present papers at our next meeting on topics pertaining to subjects that will be of mutual benefit to our Association members, and that we devote one session of our next meeting to said committee's report."

Resolution carried.

Mr. Webber—I move that this Association extends a vote of thanks to Mr. Brown for the able manner in which he conducted the affairs of the meeting during the absence of the President.

Supported and carried.

Mr. Parker—If I may have permission, I would like to have the pleasure of presenting to the Association the Vice-President, from whom we have not heard, Mr. Van Marter.

Mr. Van Marter—I am not a speech maker. But I feel grateful to the Association for the honor conferred upon me, and I can only thank you for the honor. (Applause.)

Mr. Brown—I move we adjourn sine die.

Supported and carried.



## CONSTITUTION AND BY-LAWS.

Adopted at Petoskey, Michigan, July 13, 1887.

### PREAMBLE.

Whereas, Organization, concert of action, and comparison of ideas are necessary to the advancement of any cause, and believing that a State Pharmaceutical Association will accomplish these objects; therefore

Resolved, That we, druggists of the State of Michigan, whose names are hereunto attached, in compliance with an act entitled An Act to Organize the Reputable Pharmacists of the State of Michigan into an Association to be known as the Michigan Pharmaceutical Association, approved April, 1887, do hereby organize ourselves into such Association, and adopt the following Constitution and By-Laws:

### ARTICLE I.

This Association shall be called the Michigan State Pharmaceutical Association.

### ARTICLE II.

The object of this Association shall be to unite the reputable pharmacists and druggists of this State, to improve the science and art of pharmacy, to elevate its standard, and ultimately to restrict the practice of pharmacy to properly qualified pharmacists, and to promote by all legitimate means the business interests of its members.

### ARTICLE III.

#### MEMBERSHIP.

Every pharmacist of good moral and professional standing, whether in business on his own account or employed by another, and teachers of pharmacy, materia medica, chemistry and botany, who may be specially interested in pharmacy, shall be eligible to membership.

### ARTICLE IV.

#### OFFICERS.

The officers of this Association shall be a President, three Vice-Presidents, a Secretary, an Assistant Secretary, to be selected from the place of next meeting, a Treasurer, and an Executive Committee of five members, all of whom shall be elected by ballot at the third sitting of the regular annual meetings of the Association, and to serve until their successors are elected.

There shall be elected a Committee on Trade Interests of seven members, who shall serve three years, or until their successors are elected. Three members shall be elected in 1896, two in 1897, two in 1898, and so in rotation.\*

\*As amended at the 1895 meeting.

## ARTICLE V.

### DUTIES OF OFFICERS.

Section 1. The President, or, in his absence or inability to serve, the Vice-Presidents in their order, shall preside at all meetings of the Association until the close of such meetings; call special meetings at the written request of twenty-five members; fill all vacancies that may occur in the offices of the Association between the annual meetings; shall present at each meeting a report of the Association, and perform such other duties as pertain to the office.

Sec. 2. The Secretary shall keep a record of all the proceedings of the Association. He shall keep a roll of the names of the members, with their residence, date of admission, and any subsequent changes. He shall read all communications, conduct all correspondence of the Association, notify all members four weeks in advance of each annual meeting, at each annual meeting render a report of the duties performed by him since the last annual meeting, and in conjunction with the Executive Committee, shall superintend such publication as the Association may direct. He shall notify members of their election; also notify members of committees of their appointment and election, and furnish each member of the committees with the names of their associates on said committees. He shall receive and collect all moneys for dues, and from all other sources, giving receipts for the various amounts, keep a correct account thereof, and pay the same to the Treasurer, taking his receipt therefor. He shall give a sufficient bond, subject to the approval of the committee. He shall file a copy of the proceedings of each annual meeting in the office of the State Board of Health and the Secretary of State, and shall keep at least three copies in his own office.

Sec. 3. The Treasurer shall have charge of all the funds of the Association, for which he shall be personally responsible, pay all orders of the Secretary when countersigned by the President, render a full report of his transactions at each annual meeting, and report the state of the treasury when called upon by the Executive Committee. He shall give a sufficient bond, subject to the approval of the Executive Committee.

Sec. 4. It shall be the duty of the Secretary and Treasurer to turn over to their successors, without unnecessary delay, all papers and property of the Association committed to their care.

Sec. 5. It shall be the duty of the Executive Committee to aid the local Secretary in making arrangements for the meetings of the Association, to investigate applications for membership, audit all bills against the Association, and to attend to all business not otherwise assigned.

Sec. 6. The Committee on Trade Interests shall investigate all complaints regarding trade matters made by members of this Association

and take such action thereon as they may deem proper, rendering comprehensive reports at each annual meeting of the Association. The committee shall have authority to employ a Trade Secretary, fixing his compensation, if any, and the members of the committee shall be reimbursed for actual traveling and hotel expenses incurred in attending the meetings of the committee or in pursuing investigations authorized by the committee.\*

\*As amended at the 1895 meeting.

## ARTICLE VI.

### MEETINGS.

The annual meeting of this Association shall be at such time and place as the Association shall previously determine.

## ARTICLE VII.

### BY-LAWS.

This Association may establish for its future government and regulation such By-Laws, not in conflict with the Constitution, as may be deemed proper and desirable.

## ARTICLE VIII.

### AMENDMENTS.

Every proposition to alter or amend this Constitution shall be submitted in writing and received at an annual meeting, and may be voted for at the next annual meeting, when, upon receiving the votes of three-fourths of the members present, it shall become a part of this Constitution.

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# BY-LAWS.

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## ARTICLE I.

### QUORUM.

Twelve members shall constitute a quorum.

## ARTICLE II.

### MEMBERSHIP.

The names of persons applying for membership, with their age, residence, present occupation, and length of experience in pharmacy, shall be presented in writing, signed by two members in good standing,

to the Executive Committee, and if favorably acted upon by that committee, the candidate shall be considered elected. A vote of all the members of the Executive Committee shall be required for an election.

#### ARTICLE III.

##### FEES.

The initiation fee of this Association shall be one dollar, which fee shall accompany the application.

#### ARTICLE IV.

##### DUES.

Every member shall pay to the Secretary, on or before the first day of January of each year, the sum of one dollar. It shall be the duty of the Secretary to draw on all members when two years in arrears, previously sending notice of his intention to draw at a certain date. Any person neglecting to pay dues for three successive years shall forfeit membership. Dues paid by new members before an annual meeting shall apply on the present year. Those becoming members and paying dues after an annual meeting shall receive credit for the following year.

#### ARTICLE V.

##### CERTIFICATE OF MEMBERSHIP.

Each member of this Association may, if he desire, upon the payment of one dollar, receive a certificate of membership, which shall be issued by the Secretary, provided said member is not in arrears for dues.

#### ARTICLE VI.

##### COMMITTEES.

Section 1. The President shall, before the close of each annual meeting, appoint the following committees (of which he shall be an ex-officio member), each to consist of three members: Committee on Pharmacy and Queries, Committee on Legislation, Committee on Adulterations.

Sec. 2. The Committee on Pharmacy and Queries shall report annually respecting scientific progress, discoveries and investigations during the year, and near the close of each annual meeting a proper number of questions of scientific or practical interest, and shall secure the acceptance of as many of such questions of investigation as may be practicable, to be reported upon at the next annual meeting.

Sec. 3. The Committee on Legislation shall keep a record of, and compile for reference, the enactments of the different States regulating the practice of pharmacy and the sale of medicines. They shall report at each annual meeting of the Association what legislation on the subject has occurred during the year, and submit such recommendations with regard to legislation in this State as shall appear to them proper.

ARTICLE VII.

SUSPENSIONS—AMENDMENTS.

Section 1. These By-Laws shall not be suspended without the consent of two-thirds of the members present.

Sec. 2. Any amendment to these By-Laws must be made in writing and read before the Association at one sitting, and laid over to a subsequent sitting, when, upon receiving the votes of two-thirds of the members present, it shall become a part of these By-Laws.

ARTICLE VIII.

DELEGATES.

Five delegates and five alternates shall be annually elected to attend the meeting of the American Pharmaceutical Association.

ARTICLE IX.

PROCEEDINGS.

The proceedings of the Association and the roll of officers, committees and members, shall be published annually under the supervision of an editor, who shall be elected annually, and who shall be paid from the funds of the Association, and a copy of the proceedings shall be sent to each member of the Association less than two years in arrears.

ARTICLE X.

EXPULSION OF MEMBERS.

Any member or officer accused of violating the Constitution or By-Laws, or other improper conduct, may be expelled or removed from office by a two-thirds vote of all the members at a regular meeting. In every case definite charges must be preferred in writing, to which shall be affixed the names of not less than three members of the Association, and the Secretary shall send the accused person a copy of the charges and notify him in writing at least two weeks in advance of the time when his case will come up for hearing, offering him an opportunity to be heard in his own defense.

ARTICLE XI.

EXHIBITS.

The Association invites manufacturers and others to exhibit at the annual meetings, crude drugs, chemicals, pharmaceutical preparations, and such objects as possess a general scientific or special pharmaceutical interest.

ARTICLE XII.

RULES OF ORDER—ORDER OF BUSINESS.

Section 1. The Rules of Order of this Association shall be those in common use in deliberative assemblies, and such special rules as may be adopted by the Association.

Sec. 2. The order of business shall be such as the Executive Committee shall prescribe.

## LIST OF MEMBERS.

If you change your residence, if your name and address are incorrectly given in Membership Roll, or if you hear of the death of a fellow-member, please notify the Secretary at once.

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|------------------------------------------------------------------------|------|
| Adams, H. M., Port Huron.....                                          | 1888 |
| Akey, J. V., cor. Central and Vernon Aves., So., Los Angeles, Cal..... | 1885 |
| Anderson, C. N., 511 Brush St., Detroit.....                           | 1888 |
| Arner, Frederick Charles, Petoskey.....                                | 1890 |
| Atkinson, F. E., Gladwin.....                                          | 1888 |
| Atkinson, Henry M., Harbor Springs.....                                | 1894 |
| Bacon, Wm. R., Sault Ste. Marie.....                                   | 1890 |
| Bailey, Dr. John R., Mackinac Island.....                              | 1890 |
| Bailey, M. G., Mackinac Island.....                                    | 1888 |
| Baird, James J., Lansing.....                                          | 1898 |
| Baker, H. G., Michigan Drug Co., Detroit.....                          | 1888 |
| Banister, John L., 201 S. Washington St., Saginaw, E. S.....           | 1890 |
| Barie, H. L., 535 Macomb St., Detroit.....                             | 1887 |
| Barnard, Wm. Dwight, 420 Cedar St., Manistee.....                      | 1891 |
| Bassett, J. A., 201 N. Washington St., Ypsilanti.....                  | 1885 |
| Bauer, A. C., Lansing.....                                             | 1897 |
| Beacham, C. B., Romeo.....                                             | 1884 |
| Bell, John, Lexington.....                                             | 1888 |
| Bellaire, Archie Joseph, Gladstone.....                                | 1890 |
| Bennett, John S., Lansing.....                                         | 1897 |
| Bertram, J. P., 13 Main St., Westphalia.....                           | 1883 |
| Bird, Harry Lamont, Benton Harbor.....                                 | 1898 |
| Black, C. P., Lansing.....                                             | 1899 |
| Borradaile, Frederick H., 202 South Walnut St., Lansing.....           | 1892 |
| Bostick, Chas. H., Manton.....                                         | 1898 |
| Bradshaw, John P. H., Davison.....                                     | 1894 |
| Bristol, U. D., Lapeer.....                                            | 1884 |
| Brooks, Alanson S., Michigan Drug Co., Detroit.....                    | 1890 |
| Bross, C. M., Jerome.....                                              | 1889 |
| Brown, H. J., Ann Arbor.....                                           | 1883 |
| Bricker, Chester E., Port Huron.....                                   | 1898 |
| Brundage, F., Muskegon.....                                            | 1886 |
| Bugbee, C. A., Traverse City.....                                      | 1885 |
| Burch, Mrs. Florence, Adair.....                                       | 1898 |
| Burdick, H. H., 611 E. Midland St., West Bay City.....                 | 1884 |
| Burke, Wm. H., 153 Grand River Ave., Detroit.....                      | 1899 |
| Burley, David H., Almont.....                                          | 1890 |
| Burwell, R. G., 2339 Gratiot Ave., Port Huron.....                     | 1884 |
| Cadlip, Samuel, Iron Mountain.....                                     | 1896 |
| Caldwell, J. W., 242 Grand River Ave., Detroit.....                    | 1888 |
| Calkins, E. E., Ann Arbor.....                                         | 1888 |
| Chandler, C. A., Cambria.....                                          | 1884 |
| Church, H. M., Holly.....                                              | 1883 |
| Church, Wm. D., Grand Rapids.....                                      | 1889 |

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|-------------------------------------------------------------|------|
| Clarke, A. B., Gobleville.....                              | 1885 |
| Clark, A. G., White Cloud.....                              | 1883 |
| Caldwell, J. W., 242 Grand River Ave., Detroit.....         | 1888 |
| Clark, J. K., Blissfield.....                               | 1884 |
| Coe, Thomas D., Romeo.....                                  | 1884 |
| Cohoe, Adolph, Capac.....                                   | 1890 |
| Cole, V. W., Petoskey.....                                  | 1886 |
| Colman, H. G., Kalamazoo.....                               | 1884 |
| Colwell, Dr. C. B., Jackson.....                            | 1886 |
| Conway, Ventry R., Sault Ste. Marie.....                    | 1899 |
| Cook, Charles E., 912 Van Buren St., Bay City.....          | 1884 |
| Coppernoll, Geo. T., Port Huron.....                        | 1898 |
| Cornell, David A., Copenish.....                            | 1882 |
| Cosford, Dr. J. W., Mancelona.....                          | 1887 |
| Crawford, J. B., Ithaca.....                                | 1885 |
| Cress, Edward A., Minden City.....                          | 1890 |
| Crispe, John, Plainwell.....                                | 1886 |
| Crowley, J. J., 421 Michigan Ave., Detroit.....             | 1884 |
| Culver, Dr. R. W., South Haven.....                         | 1886 |
| Cummer, R. J., 176 Euclid Ave., Cleveland, O.....           | 1884 |
| Curran, E. S., St. Joseph.....                              | 1883 |
| Cutler, W. R., Ionia.....                                   | 1883 |
| Darling, G. S., Tawas City.....                             | 1888 |
| Davis, James E., Michigan Drug Co., Detroit.....            | 1884 |
| Dayton, A. J., 674 Wealthy Ave., Grand Rapids.....          | 1887 |
| Dean, H. M., Niles.....                                     | 1887 |
| Dendel, W. H., Hopkins Station.....                         | 1892 |
| Dennis, G. C., Rochester.....                               | 1888 |
| DePuy, C. E., Stockbridge.....                              | 1888 |
| Dillon, James E., East Tawas.....                           | 1887 |
| Dorrance, A. A., Coldwater.....                             | 1883 |
| Doty, Wirt P., Detroit.....                                 | 1897 |
| Dunlap, Thomas, South Lyon.....                             | 1884 |
| Dupont, William, 182 Michigan Ave., Detroit.....            | 1883 |
| Eberbach, O., Ann Arbor.....                                | 1883 |
| Fabry, Dr. John J., Benton Harbor.....                      | 1898 |
| Farrand, J. S. Jr., Farrand, Williams & Clark, Detroit..... | 1888 |
| Fauckboner, Orin A., 429 E. Bridge St., Grand Rapids.....   | 1890 |
| Fay, O. J., Carleton.....                                   | 1888 |
| Fenton, George L., Kingsley.....                            | 1885 |
| Foote, C. E., Foote & Jenks, Jackson.....                   | 1886 |
| Fordham, M., Elmira.....                                    | 1885 |
| Fordham, W. W., Elmira.....                                 | 1884 |
| Fritz, T. H., Cass City.....                                | 1885 |
| Gates, Dr. T. O., East Tawas.....                           | 1884 |
| Gerow, J. E., Ovid.....                                     | 1883 |
| Gill, W. J., Beacon.....                                    | 1884 |
| Goodrich, L. A., Hillsdale.....                             | 1884 |
| Goodwin, N. A. N., Eli Lilly & Co., Indianapolis, Ind.....  | 1896 |
| Grandy, Francis, Fairfield.....                             | 1885 |
| Grunow, O. H., 288 Randolph St., Detroit.....               | 1884 |
| Gundrum, George, Ionia.....                                 | 1888 |
| Hackett, P. E., Wolverine.....                              | 1886 |
| Hagans, Daniel A., Monroe.....                              | 1899 |
| Haines, Edwin J., Duroy & Haines Co., Sandusky, O.....      | 1890 |



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|----------------------------------------------------------|------|
| Hale, H. G., Nashville.....                              | 1883 |
| Hall, Perley W., Benton Harbor.....                      | 1898 |
| Hallock, D. S., 18th and Fort Sts., Detroit.....         | 1897 |
| Harwood, Henry, Ishpeming.....                           | 1885 |
| Hayes, Newland, 313 Forest Ave. W., Detroit.....         | 1894 |
| Hays, J. A., Ph. G., 147 S. 18th St., Pittsburg, Pa..... | 1895 |
| Heffernan, Thomas, Grand Rapids.....                     | 1895 |
| Helm, Henry, Saginaw, E. S.....                          | 1897 |
| Henderson, Frank L., Jackson.....                        | 1899 |
| Herman, Bruno A., St. Joseph.....                        | 1898 |
| Hessler, Wm., M. D., 364 Jos. Campan Ave., Detroit.....  | 1883 |
| Hessler, W. F., Rockford.....                            | 1895 |
| Hicks, W. H., Big Rapids.....                            | 1883 |
| Hinchman, C. C., Michigan Drug Co., Detroit.....         | 1885 |
| Hinchman, J. M., Michigan Drug Co., Detroit.....         | 1888 |
| Hoffman, M. W., Jackson.....                             | 1899 |
| Holden, Jesse F., Brown City.....                        | 1898 |
| Hopkins, F. S., Benton Harbor.....                       | 1888 |
| Hopper, Arthur G., Alpena.....                           | 1896 |
| Hueber, Chas. F., Port Huron.....                        | 1898 |
| Hunt, A. O., St. Johns.....                              | 1885 |
| Hunt, Dewitt H., St. Johns.....                          | 1888 |
| Hurd, A. E., Davison.....                                | 1884 |
| Hyde, A. O., Marshall.....                               | 1883 |
| Ingram, F. F., Detroit.....                              | 1891 |
| Jack, G. T., Michigan Drug Co., Detroit.....             | 1890 |
| Jenks, Chas. C., Foote & Jenks, Jackson.....             | 1898 |
| Jones, H. Otis, New Buffalo.....                         | 1895 |
| Johnson, J. G., Traverse City.....                       | 1884 |
| Johnson, O. C., Ann Arbor.....                           | 1884 |
| Kane, John S., Onstead.....                              | 1899 |
| Kavanagh, E. A., 222 W. Washington St., Jackson.....     | 1898 |
| Kephart, H., Berrien Springs.....                        | 1883 |
| Kephart, Philip, Berrien Springs.....                    | 1899 |
| Kidder, Samuel, Jr., Almont.....                         | 1899 |
| Kimmich, Robert S., 202 Washington Ave. N., Lansing..... | 1897 |
| Kingsley, John, M. D., Manistee.....                     | 1889 |
| Kirchner, J. S., 600 Congress St. E., Detroit.....       | 1895 |
| Kirkwood, P. B., Negaunee.....                           | 1885 |
| Knaak, Gustav H., St. Joseph.....                        | 1899 |
| Knill, H. C. Jr., Port Huron.....                        | 1888 |
| Knox, James W. T., 1177 Champlain St., Detroit.....      | 1898 |
| LaRue, C. M., 610 E. Midland St., West Bay City.....     | 1885 |
| Leland, N. P., Durand.....                               | 1886 |
| Leyerer, George S., 1102 Columbus Ave., Bay City.....    | 1890 |
| Lipinski, Julius, 156 Gratiot Ave., Detroit.....         | 1895 |
| Little, A. F., Aarwood, Kalkaska Co.....                 | 1885 |
| Lohrstorfer, Joseph, Port Huron.....                     | 1898 |
| Lowe, Vincent A., Benton Harbor.....                     | 1898 |
| Luce, W. O. Jr., Caro.....                               | 1885 |
| Lyon, L. W., 722 St. Aubin Ave., Detroit.....            | 1895 |
| Lyons, Dr. A. B., 72 Brainard St., Detroit.....          | 1898 |
| Manderville, W. W., 197 Randolph St., Chicago, Ill.....  | 1899 |
| Martin, E. C., Capac.....                                | 1897 |
| May, George R., Jackson.....                             | 1899 |

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|-----------------------------------------------------------------|------|
| McDonald, George, Kalamazoo.....                                | 1883 |
| McGee, Thomas H., Farmington.....                               | 1891 |
| McKenna, J. D., Shepherd.....                                   | 1884 |
| McKevitt, H. D., Ishpeming.....                                 | 1895 |
| McKibbin, R. S., 322 Fort St. W., Detroit.....                  | 1888 |
| McMullen, G. H., Ionia.....                                     | 1883 |
| Main, James L., Tekonsha, Calhoun Co.....                       | 1895 |
| Mann, Charles F., 845 Third Ave., Detroit.....                  | 1888 |
| Martin, A. F., Inlay City.....                                  | 1884 |
| Martin, Susie A., Holland.....                                  | 1885 |
| Mason, J. F., Warren.....                                       | 1888 |
| Matthews, Geo. M., 6th and Broadway Sts., Grand Rapids.....     | 1891 |
| Maxson, M. M., Hudson.....                                      | 1885 |
| Meseroll, D. C., 154 Main St., Jackson.....                     | 1884 |
| Mesick, H. J., Plainwell.....                                   | 1886 |
| Miller, H. J., Vassar.....                                      | 1885 |
| Millspaugh, Martin Benedict, 98 N. Union St., Grand Rapids..... | 1890 |
| Morris, H. M., 919 Grand River Ave., Detroit.....               | 1888 |
| Morrish, N. D., Sault Ste. Marie.....                           | 1895 |
| Muir, J. D., Grand Rapids.....                                  | 1886 |
| Maurer, Carl L., Cadillac.....                                  | 1895 |
| Nasmyth, P. F., cor. Baker and 18th Sts., Detroit.....          | 1888 |
| Nelson, E. H., Nelson, Baker & Co., Detroit.....                | 1884 |
| Nugent, W. A., Bay Mills.....                                   | 1891 |
| Parker, A. S., 745 Woodward Ave., Detroit.....                  | 1883 |
| Parkill, S. E., Owosso.....                                     | 1883 |
| Passage, J. H., Greenville.....                                 | 1886 |
| Pasternacki, Charles L., 779 Hastings St., Detroit.....         | 1895 |
| Patenaude, A., Norway.....                                      | 1887 |
| Patou, David W., Almont.....                                    | 1898 |
| Patterson, B. M., 238 Randolph St., Detroit.....                | 1885 |
| Pauly, L., 84 Canal St., Grand Rapids.....                      | 1888 |
| Peck, J. E., Grand Rapids.....                                  | 1885 |
| Packham, H. C., Freeport.....                                   | 1885 |
| Pegg, H. D., Morenci.....                                       | 1884 |
| Perham, J. T., Kent City.....                                   | 1888 |
| Perry, F. W. R., 700 Woodward Ave., Detroit.....                | 1883 |
| Pettitt, Charles E., Sand Beach.....                            | 1890 |
| Phillips, E. F., Armada.....                                    | 1883 |
| Phillips, F. S., Ogden.....                                     | 1884 |
| Pinkerton, Howard, 81 Grand River Ave., Detroit.....            | 1899 |
| Power, J. O., Addison.....                                      | 1884 |
| Prall, D. E., Saginaw.....                                      | 1883 |
| Pratt, G. O., 720 St. Antoine St., Detroit.....                 | 1884 |
| Prescott, A. B., Ann Arbor.....                                 | 1883 |
| Price, Fred. R., Sault Ste. Marie.....                          | 1899 |
| Prosser, H. H., Flushing.....                                   | 1895 |
| Purvis, G. S., 983 Jefferson Ave., Detroit.....                 | 1885 |
| Putnam, Arthur S., Manistique.....                              | 1898 |
| Ray, G. C., West Bay City.....                                  | 1885 |
| Reidy, Mike, Corunna.....                                       | 1884 |
| Remus, William J., 208 Clinton St., Grand Rapids.....           | 1892 |
| Reynolds, Linton E., St. Joseph.....                            | 1890 |
| Richmond, Dr. T. W., Bear Lake.....                             | 1888 |
| Richter, Louis J., Saginaw, W. S.....                           | 1895 |
| Riggs, Miles E., Cheboygan.....                                 | 1891 |

|                                                          |      |
|----------------------------------------------------------|------|
| Rodenbaugh, H. W., Breedsville.....                      | 1887 |
| Rodenbaugh, I. N., Mancelona.....                        | 1886 |
| Rodgers, E. J., Port Huron.....                          | 1884 |
| Rogers, A., Ravenna.....                                 | 1888 |
| Rudell, William A., Sault Ste. Marie.....                | 1890 |
| Rudolph, A. E., Dowagiac.....                            | 1886 |
| Runner, J. W., Shelby.....                               | 1886 |
| Russell, Dorlan M., 84 Canal St., Grand Rapids.....      | 1892 |
| Russell, Ellsworth E., Jackson.....                      | 1890 |
| Sackett, S. M., Monroe.....                              | 1883 |
| Schlottorbeck, Julius O., Ann Arbor.....                 | 1890 |
| Schmidt, Walter Karl, 84 Canal St., Grand Rapids.....    | 1892 |
| Schrouder, Benj., 209 E. Bridge St., Grand Rapids.....   | 1892 |
| Schultz, L. S., St. Joseph.....                          | 1885 |
| Schumacher, A. C., Ann Arbor.....                        | 1887 |
| Schumaker, A. B., Grand Ledge.....                       | 1884 |
| Sealey, James W., 95-97 Woodward Ave., Detroit.....      | 1890 |
| Shaffer, John M., Gladwin.....                           | 1889 |
| Sharrard, Geo. S., Port Huron.....                       | 1898 |
| Sherrard, Charles C. (Ph C.), 121 20th St., Detroit..... | 1892 |
| Sherwood, C. L., Dowagiac.....                           | 1884 |
| Siebert, G. F., Iron Mountain.....                       | 1883 |
| Sigler, F. A., Pinckney.....                             | 1885 |
| Smith, Charles M., Pontiac.....                          | 1898 |
| Smith, Fletcher S., Saginaw, W. S.....                   | 1883 |
| Smith, John W., Benton Harbor.....                       | 1898 |
| Smith, Samuel R., 225 S. Division St., Grand Rapids..... | 1892 |
| Smith, Sydney S., Carrollton.....                        | 1898 |
| Sourwine, John J., Escanaba.....                         | 1897 |
| Spayde, W. H., Bloomingdale.....                         | 1886 |
| Speckhard, Adolphus O., Watersmeet.....                  | 1891 |
| Sprague, W. G., Flushing.....                            | 1883 |
| Spring, Herman G., Unionville.....                       | 1898 |
| Spinning, J. Frank, 106 N. Washington Ave., Lansing..... | 1897 |
| Stafford, E. O., Marquette.....                          | 1898 |
| Stafford, Joseph, Newberry.....                          | 1890 |
| Stanton, H. N., Sidnaw.....                              | 1885 |
| Stearns, Frederick K., Detroit.....                      | 1891 |
| Stephens, Walter E., 1245 State St., Chicago, Ill.....   | 1898 |
| Stevens, A. B., Ann Arbor.....                           | 1883 |
| Stevens, F. D., 133 Woodward Ave., Detroit.....          | 1883 |
| Stone, C. G., 19 Archer Ave., Mt. Vernon, N. Y.....      | 1884 |
| Stover, H. E., Kalkaska.....                             | 1886 |
| Stringer, G. W., 898 Michigan Ave., Detroit.....         | 1884 |
| Summers, J. W. F., Gould City.....                       | 1892 |
| Swaby, G. A., 401 Center Ave., Bay City.....             | 1885 |
| Swift, George, 34 W. Congress St., Detroit.....          | 1883 |
| Taber, Roland B., Benton Harbor.....                     | 1898 |
| Taylor, Mrs. C. W., Loomis.....                          | 1885 |
| Taylor, H. S., 54 Selden Ave., Detroit.....              | 1884 |
| Thompson, Frank A., Detroit.....                         | 1889 |
| Todd, A. M., Kalamazoo.....                              | 1887 |
| Travis, W. B., Belding.....                              | 1898 |
| Todd, Fred. J., Detroit.....                             | 1886 |
| Turner, Dr. R., Flat Rock.....                           | 1886 |
| Tuttle, W. A., 115 Woodward Ave., Detroit.....           | 1883 |

|                                                               |      |
|---------------------------------------------------------------|------|
| Upton, Eugene S., Durand.....                                 | 1896 |
| Vandecar, J. H., North Branch.....                            | 1883 |
| Van Marter, Ezra J., 155 W. Main St., Jackson.....            | 1884 |
| Van Vranken, G. D., Cadillac.....                             | 1883 |
| Varnum, E. C., Jonesville.....                                | 1884 |
| Varnum, G. C., Jonesville.....                                | 1884 |
| Vaughan, B. D., 219 Superior St., Albion.....                 | 1884 |
| Vernor, James, 33 Woodward Ave., Detroit.....                 | 1884 |
| Von Walthausen, Werner, 1345 Johnson St., Bay City.....       | 1884 |
| Walte, S. E., Traverse City.....                              | 1884 |
| Walker, A. L., 411 Woodward Ave., Detroit.....                | 1888 |
| Walsh, Heber, 63 E. Eighth St., Holland.....                  | 1885 |
| Ward, G. J., St. Clair.....                                   | 1884 |
| Warren, W. M., with Parke, Davis & Co., Detroit.....          | 1888 |
| Webb, B. S., Alma.....                                        | 1883 |
| Webb, E. T., Jackson.....                                     | 1885 |
| Webber, A. H., Cadillac.....                                  | 1884 |
| Weeks, Eugene J., Jackson.....                                | 1899 |
| Weeks, James E., Battle Creek.....                            | 1889 |
| Weinmann, Frederick, 202 N. Washington Ave., Lansing.....     | 1897 |
| Weiss, J., Monroe.....                                        | 1888 |
| Wellman, Bert E., Armada.....                                 | 1894 |
| Wells, Joseph J., Athens.....                                 | 1899 |
| West, Ben. E., Grand Rapids.....                              | 1898 |
| Westervelt, F. E., Hotel Vendome, Grand Rapids.....           | 1896 |
| Wetzel, H. A., 902 Jefferson Ave., Detroit.....               | 1888 |
| Wicks, Frank E., 317 Meldrum Ave., Detroit.....               | 1898 |
| Wilber, C. H., St. Ignace.....                                | 1887 |
| Wilders, A. J., Ortonville.....                               | 1885 |
| Wilkinson, James E., Crystal Falls.....                       | 1899 |
| Williams, Frederick J., Lansing.....                          | 1898 |
| Williams, R. P., care Farrand, Williams & Clark, Detroit..... | 1888 |
| Williams, W. C., Michigan Drug Co., Detroit.....              | 1884 |
| Winegar, Willard S., Lowell.....                              | 1892 |
| Witherspoon, P. E., Benton Harbor.....                        | 1885 |
| Wolfinger, C. E., Hopkins Station.....                        | 1884 |
| Wood, Will H., Sheridan.....                                  | 1887 |
| Wright, C. A., Tecumseh.....                                  | 1884 |
| Yeomans, E. T., Ionia.....                                    | 1883 |
| Young, Geo. O., Lansing.....                                  | 1897 |
| Zeller, Simeon, Sault Ste. Marie.....                         | 1899 |

## HONORARY MEMBERS.

|                                                                         |              |
|-------------------------------------------------------------------------|--------------|
| Duffield, S. P., Ph., M. D., Detroit.....                               | Elected 1887 |
| Englehard, G. P., Icaço, Ill.....                                       | " 1883       |
| Stowell, Mrs. L. R., M. D., Washington, D. C.....                       | " 1887       |
| Vaughan, V. C., Ph. D., M. D., Ann Arbor.....                           | " 1887       |
| Wampelmeyer, T. J., Ph. C., San Diego, Cal.....                         | " 1887       |
| Wells, Frank, Lansing.....                                              | " 1890       |
| Hoffman, Fr., Ph. D., Berlin, Charlotten Kant Str. 125,<br>Germany..... | " 1883       |
| Jesson, Jacob, Anaheim, Cal.....                                        | " 1894       |

**DROPPED BY REQUEST AND FOR NON-PAYMENT OF DUES.**

|                                |                             |
|--------------------------------|-----------------------------|
| Anderson, Ellery, Midland.     | McCullough, E. P., Detroit. |
| Bademan, M. H., Stanton        | McDonald, David, Kalamazoo. |
| Bassett, A., Detroit.          | McFarland, A., Detroit.     |
| Beach, L. F., Bay City.        | Milliken, T. J., St. Clair. |
| Bogart, F. E., Detroit.        | Ripley, L. G., Montague.    |
| Bristol, F. E., Lapeer.        | Rheinfrank, J. P., Detroit. |
| Fildew, A. S., St. Johns.      | Roscoe, Fred., Bay City.    |
| Glazier, F. P., Chelsea.       | Spencer, J. L., Linden.     |
| Hueston, G. C., Northville.    | Spencer, M. Ella, Linden.   |
| Hutchins, L. M., Grand Rapids. | Thum, Hugo, Grand Rapids.   |
| Hutchinson, B. S., Lyons.      | Tupper, F. L., Salzburg.    |
| Kentink, Theo., Grand Rapids   | Walker, J. D., Saginaw.     |
| Kenyon, W. W., Howell          | Wendover, W. V., Detroit.   |
| Law, Dr. W. J., Baraga.        | Williamson, John, Detroit.  |
| Lentz, Theo., Detroit.         | Woods, C. H., Detroit.      |
| Lever, Dr. H., Fremont.        | Wright, Chas., Detroit.     |
| Lyman, Dr. M. R., Gagetown     | Whipple, Geo. N., Detroit.  |
| Mason, C. A., Flint.           |                             |

to the Executive Committee, and if favorably acted upon by that committee, the candidate shall be considered elected. A vote of all the members of the Executive Committee shall be required for an election.

### ARTICLE III.

#### FEES.

The initiation fee of this Association shall be one dollar, which fee shall accompany the application.

### ARTICLE IV.

#### DUES.

Every member shall pay to the Secretary, on or before the first day of January of each year, the sum of one dollar. It shall be the duty of the Secretary to draw on all members when two years in arrears, previously sending notice of his intention to draw at a certain date. Any person neglecting to pay dues for three successive years shall forfeit membership. Dues paid by new members before an annual meeting shall apply on the present year. Those becoming members and paying dues after an annual meeting shall receive credit for the following year.

### ARTICLE V.

#### CERTIFICATE OF MEMBERSHIP.

Each member of this Association may, if he desire, upon the payment of one dollar, receive a certificate of membership, which shall be issued by the Secretary, provided said member is not in arrears for dues.

### ARTICLE VI.

#### COMMITTEES.

Section 1. The President shall, before the close of each annual meeting, appoint the following committees (of which he shall be an ex-officio member), each to consist of three members: Committee on Pharmacy and Queries, Committee on Legislation, Committee on Adulterations.

Sec. 2. The Committee on Pharmacy and Queries shall report annually respecting scientific progress, discoveries and investigations during the year, and near the close of each annual meeting a proper number of questions of scientific or practical interest, and shall secure the acceptance of as many of such questions of investigation as may be practicable, to be reported upon at the next annual meeting.

Sec. 3. The Committee on Legislation shall keep a record of, and compile for reference, the enactments of the different States regulating the practice of pharmacy and the sale of medicines. They shall report at each annual meeting of the Association what legislation on the subject has occurred during the year, and submit such recommendations with regard to legislation in this State as shall appear to them proper.

ARTICLE VII.

SUSPENSIONS—AMENDMENTS.

Section 1. These By-Laws shall not be suspended without the consent of two-thirds of the members present.

Sec. 2. Any amendment to these By-Laws must be made in writing and read before the Association at one sitting, and laid over to a subsequent sitting, when, upon receiving the votes of two-thirds of the members present, it shall become a part of these By-Laws.

ARTICLE VIII.

DELEGATES.

Five delegates and five alternates shall be annually elected to attend the meeting of the American Pharmaceutical Association.

ARTICLE IX.

PROCEEDINGS.

The proceedings of the Association and the roll of officers, committees and members, shall be published annually under the supervision of an editor, who shall be elected annually, and who shall be paid from the funds of the Association, and a copy of the proceedings shall be sent to each member of the Association less than two years in arrears.

ARTICLE X.

EXPULSION OF MEMBERS.

Any member or officer accused of violating the Constitution or By-Laws, or other improper conduct, may be expelled or removed from office by a two-thirds vote of all the members at a regular meeting. In every case definite charges must be preferred in writing, to which shall be affixed the names of not less than three members of the Association, and the Secretary shall send the accused person a copy of the charges and notify him in writing at least two weeks in advance of the time when his case will come up for hearing, offering him an opportunity to be heard in his own defense.

ARTICLE XI.

EXHIBITS.

The Association invites manufacturers and others to exhibit at the annual meetings, crude drugs, chemicals, pharmaceutical preparations, and such objects as possess a general scientific or special pharmaceutical interest.

much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof, if in any year the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the Board of State Auditors and to the Michigan Pharmaceutical Association, of all moneys received and disbursed by it pursuant to this act.

Sec. 4. Every person who shall within three months after this act takes effect forward the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in the State at the time this act takes effect, in the preparation of physicians' prescriptions, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist. Provided, That in case of failure or neglect to register as herein provided, then such person shall, in order to be registered, comply with the requirements provided for registration as a licentiate in pharmacy hereinafter described.

Sec. 5. No person other than a licentiate in pharmacy shall be entitled to registration as a pharmacist, except as provided in Section Four. Licentiates in pharmacy shall be such persons, not less than eighteen years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the board a fee of three dollars: Provided, That in case of a failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within one year. The said board may grant certificates or registration without further examination to the licentiates of such other boards of pharmacy as it may deem proper upon a payment of a fee of two dollars.

Sec. 6. The said board may grant, under such rules and regulations as it may deem proper, at a fee not exceeding one dollar, the certificate of registered assistant to clerks or assistants in pharmacy not less than eighteen years of age who at the time this act takes effect, shall be engaged in such service in this State, and have been employed or engaged two years or more in the practice of pharmacy; but such certificate shall not entitle the holder to engage in such business on his own account, or to take charge of, or act as manager of, a pharmacy or drug store.

Sec. 7. Each registered pharmacist, or registered assistant, who desires to continue the practice of his profession shall annually, after the expiration of the first year of his registration, during the time he shall continue in such practice, on such date as the board of pharmacy may determine, pay to the said board a registration fee to be fixed by the board, but which shall not exceed one dollar for a pharmacist, or fifty cents for an assistant, for which he shall receive a renewal of said registration. Every person receiving a certificate under this act shall keep the same conspicuously exposed in his place of business. Every registered pharmacist, or assistant, shall, within ten days after changing his place of business or employment, as designated by his certificate, notify the Secretary of the board of his new place of business. If any pharmacist or registered assistant shall fail or neglect to procure his annual registration, or to comply with



the other provisions of this section, his right to act as such pharmacist or assistant shall cease at the expiration of ten days from the time notice of such failure to comply with the provisions of this section shall have been mailed to him by the Secretary of said board.

Sec. 8. All or any registration obtained through false representations shall be void, and the Board of Pharmacy may hear complaints and evidence and may revoke such certificates as it may deem improperly held.

Sec. 9. Any proprietor of a pharmacy who, not being a registered pharmacist, shall, ninety days after this act takes effect, fail or neglect to place in charge of such pharmacy a registered pharmacist; or any such proprietor who shall by himself, or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines, or poisons, in his store or place of business except by, or in the presence and under the supervision of a registered pharmacist, or except by a registered assistant; or any person not being a registered pharmacist who shall take charge of, or act as manager of, such pharmacy or store, or who, not being a registered pharmacist or registered assistant, shall retail, compound, or dispense drugs, medicines, or poisons; or any person violating any other provision of this act to which no other penalty is herein attached, shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than ten nor more than one hundred dollars, and in default of payment thereof shall be imprisoned not less than ten days nor more than ninety days, or both, such fine and imprisonment in the discretion of the court.

Sec. 10. Nothing in this act shall apply to, or in any manner interfere with, the business of any practicing physician who does not keep open shop for retailing, dispensing, or compounding of medicines and poisons, or prevent him from supplying to his patient such articles as may seem to him proper; nor to the vending of patent or proprietary medicines by any retail dealer who has been in such business three years or more; nor to the selling by any person of drugs, medicines, chemicals, essential oils, and tinctures which are put up in bottles, boxes or packages, bearing labels securely affixed, which labels shall bear the name of the pharmacist or druggist putting up the same, the dose that may be administered to persons three months, six months, one year, three years, five years, ten years, fifteen years, and twenty-one years of age, and, if a poison, the name or names of the most common antidotes; of copperas, borax, blue vitriol, saltpetre, pepper, sulphur, brimstone, paris green, licorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, glycerine, Glauber Salts, epsom salts, cream tartar, bi-carbonate of soda, sugar of lead, and such acids as are used in coloring and tanning; nor to the selling of paregoric, essence of peppermint, essence of ginger, essence of cinnamon, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits of camphor, number six, sweet spirits of nitre, laudanum, quinine and all other preparations of cinchona bark, tincture of aconite, and tincture of iron, compound cathartic pills, or quinine pills, nor to the exclusively wholesale business of any dealer; Provided, That every person who shall within three months after this act takes effect forward to the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in this State, in the preparation of physicians' prescriptions, three years next previous to the

second day of June, 1885, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist. And provided further, That the said board may grant, at a fee not exceeding one dollar, to such person not less than sixteen years of age who shall pass a satisfactory examination touching his competency before the Board of Pharmacy, the certificate of registered "assistant," but such certificate shall not entitle the holder to engage in business on his own account or to take charge of, or act as manager of a pharmacy or drug store.

Sec. 11. No person shall add to or remove from any drug, medicine, chemical, or pharmaceutical preparation, any ingredient or material, for the purpose of adulteration or substitution, which shall deteriorate the quality, commercial value, or medicinal effect, or which shall alter the nature or composition of such drug, medicine, chemical or pharmaceutical preparation, so that it will not correspond to the recognized tests of identity or purity. Any person who shall thus wilfully adulterate or alter, or cause to be adulterated or altered, or shall sell or offer for sale, any such drugs, medicine, chemical, or pharmaceutical preparation, or any person who shall substitute or cause to be substituted, one material for another, with the intention to defraud or deceive the purchaser, shall be guilty of a misdemeanor, and be liable to prosecution under this act. If convicted, he shall be liable to all the costs of the action, and for the first offense be liable to a fine of not less than ten dollars nor more than one hundred dollars, and for each subsequent offense a fine of not less than twenty-five dollars nor more than one hundred and fifty dollars. On complaint being entered, the Board of Pharmacy is hereby empowered to employ an analyst or chemist, whose duty it shall be to examine into the so-called adulteration, substitution or alteration, and report upon the result of his investigation; and if said report shall be deemed to justify such action, the board shall duly cause the prosecution of the offender, as provided in this act.

Sec. 12. The senior pharmacist of every house dispensing and compounding medicines, registered under this act, shall be exempt and free from all jury duty in the courts of this State.

Sec. 13. All acts and parts of acts in conflict with the provisions of this act are hereby repealed.

Approved June 2, 1885.

FOUNDED A. D. 1818

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NEW YORK CITY.

President.

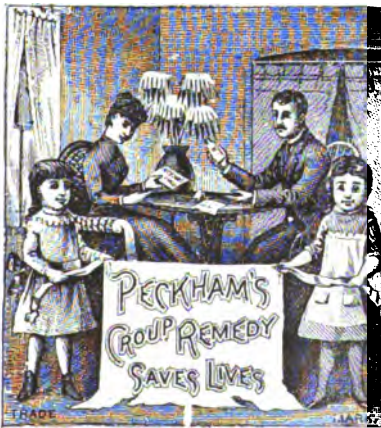
# HIGH GRADE Prescription Corks

Sold under the name of



**ARE GUARANTEED**

in every particular by the manufacturers  
and recommended by the Association.



Peckham's Calendar Offer for 1900 is now ready and will be mailed to Druggists, who have not received it, with sample calendar, upon receipt of postal request. Our price and discounts remain the same as before the stamp tax was imposed. The offer closes December 1st. Advertising matter with imprint, free upon receipt of jobber's name.

Peckham's Cough Remedy Co. FREEPORT, MICH.

## THREE TRADE MARKS WINNING PERFUMES

**Pink Moss Rose,  
Cuban Lilies and  
Wildwood Violet.**



ORDER OF YOUR WHOLESALE  
DRUGGISTS, OR OF . . .

**FOOTE & JENKS,**

JACKSON, MICH.

# The Retail Druggist who keeps a "Pharmacy"

makes his own preparations, and also makes more money than the one who thinks the "easiest way is the best," and dilutes Fluid Extracts and calls them Tinctures.

The formulæ for making Tinctures are distinctly expressed in the Pharmacopœia, and should be followed to be legitimately called "Tinctures." The cut-rate and department stores are absorbing the sale of patent medicines, and the druggist must look to his profession for profit, and, instead of maintaining large manufacturing establishments for others, have a small, profitable one of his own.

Send for Price List and Formulary.

## GILPIN, LANGDON & Co. BALTIMORE, MD.

---

### **CARBOLIC ACID CRYSTALS.**

Special attention of careful discriminating pharmacists is called to our "GILT LABEL" Carbolic Acid, in hard crystals, remaining white, free from tarry matter, and a superior article for dispensing purposes.

### **SOLUTION HYDROGEN DIOXIDE.**

We have given special attention to the manufacture of this article, and believe we have attained the highest degree of perfection in our product. We guarantee our Hydrogen Dioxide Solution to fully meet the requirements of the U. S. Pharmacopœia, and to be unsurpassed for purity, freedom from acidity, strength and keeping qualities by any other brands on the market.

### **COCAINE HYDROCHLORATE.**

We supply the article in handsome, well-defined crystals, unsurpassed for purity and appearance.

Our **Chemically Pure Acids, Iodides, Bromides, Pure Granulated Salts, Calomel, Corrosive Sublimate**, and other chemicals can be supplied by all jobbing drug houses at prices no higher than for other reliable brands, and we request pharmacists to specify "M. C. W." when ordering, and to insist on having the goods furnished in packages bearing our label.

**Mallinckrodt Chemical Works, St. Louis and New York.**

# DR. D. JAYNE'S



## Family... Medicines

Reach a real need. They are reliable curatives.  
Are still compounded from Dr. D. Jayne's  
original prescriptions, and have been in constant  
use for more than two-thirds of a century.  
They include

**The Cough Cure:**

**Jayne's Expectorant.**

**The Strength Giver:**

**Jayne's Tonic Vermifuge.**

**The Blood Purifier:**

**Jayne's Alterative.**

**For Bowel Troubles:**

**Jayne's Carminative Balsam.**

**For Liver Complaint, Constipation, etc.:**

**Jayne's Sanative Pills.**

**The Counter-Irritant:**

**Jayne's Liniment.**

**The Scalp Cure and Hair Renewer:**

**Jayne's Hair Tonic.**

---

Prepared only by

**DR. D. JAYNE & SON, PHILADELPHIA, PA.**

**FOR SALE BY ALL DRUGGISTS.**

# "CANADIAN CLUB"

## — WHISKY —

**Warranted Absolutely Pure.**

**Age Guaranteed by the Government.**

**Unsurpassed for Medicinal Use.**

No Whisky was ever more generally popular in the United States, and none has ever been so much counterfeited and colorably imitated.

After years of persistent warfare, we have pretty well driven these frauds from the market ; but they are still more or less in evidence, and dealers should be on their guard against them.

American Whiskies labelled "Canadian Process" have of late made their appearance. What "Canadian Process" may mean we are unable to say ; but it is significant that the word CANADIAN is invariably very conspicuous, and the word PROCESS quite the reverse. It is likewise significant that these so-called "Canadian Process" Whiskies are generally sold as actually of Canadian origin.



## HIRAM WALKER & SONS,

LIMITED,

DISTILLERS AND BOTTLERS IN BOND,

WALKERVILLE, CANADA.

LONDON.

NEW YORK.

CHICAGO.

ATLANTA.

# TANGLEFOOT

SEALED STICKY  
FLY PAPER.

A Fly Sheet is a safe guard for the house.

---

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FREDERICK E. INGRAM & CO. PATENTERS,  
MANUFACTURERS  
PHARMACISTS.

|                |                              |                  |
|----------------|------------------------------|------------------|
| Agents         | Wholesale and Retail Dealers | Manufacturers of |
| Trade Catalogs | Large and Small Packages     | Prescriptions    |
|                | and Medicines                |                  |

1000 Broadway, New York

CHICAGO, ILL.





**PROCEEDINGS** ||

...OF THE...

|| **E**IGHTEENTH   
ANNUAL MEETING

...OF...

**The Michigan State  
Pharmaceutical  
Association.....**

|| 1900 ||



1

2

3

4

PROCEEDINGS OF THE EIGHTEENTH  
ANNUAL MEETING

OF THE

MICHIGAN STATE

Pharmaceutical Association,

HELD AT

GRAND RAPIDS, AUGUST 14, 15, 16, 1900,

ALSO

CONSTITUTION AND BY-LAWS, AND  
ROLL OF MEMBERSHIP.

---

MICHIGAN STATE BOARD OF PHARMACY  
AND PHARMACY LAW.

---

JAMES W. SEELEY, SECRETARY,

95 WOODWARD AVENUE,  
DETROIT, MICHIGAN.

100  
100  
100

## NOTICES.

---

NEXT PLACE OF MEETING, DETROIT.

AUGUST 13. 14. 15. 1901.

W. H. BURKE,  
LOCAL SECRETARY.

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## ANNUAL DUES.

The attention of the members of the Association is directed to the Amendment to Article IV. of the By-Laws, adopted at the last meeting, increasing the annual dues from one dollar to two dollars. Annual dues are payable January first.

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## ADVERTISEMENTS.

We call your attention to the fact, that it is due largely to the kindness of the advertisers that we are able to issue our Proceedings, and we trust our members will appreciate this fact in placing their orders.

## OFFICERS 1900-1901.

### President:

CHARLES F. MANN, Detroit.

### Vice-Presidents:

W. D. CHURCH, Grand Rapids.      N. D. MORRISH, Sault Ste. Marie.  
R. T. BOWER, Petoskey.

### Secretary:

JAMES W. SEELEY, Detroit.

### Treasurer:

W. K. SCHMIDT, Grand Rapids.

---

## STANDING COMMITTEES, 1900-1901.

### Executive Committee:

E. E. CALKINS, Ann Arbor.      W. H. BURKE, Detroit.  
C. B. SHUMAN, Manistee.  
J. S. BENNETT, Lansing.      D. A. HAGANS, Monroe.

### Trade Interests Committee:

#### FOR 3 YEARS.

E. F. PHILLIPS, Armada.      H. HEIM, Saginaw.

#### FOR 2 YEARS.

F. W. R. PERRY, Detroit.      DR. G. J. WARD, St. Clair.  
E. E. RUSSELL, Jackson.

#### FOR 1 YEAR.

JOHN E. PECK, Grand Rapids.      A. H. WEBBER, Cadillac.

### Pharmacy and Queries Committee:

PROF. A. B. PRESCOTT, Ann Arbor.      DR. A. B. LYONS, Detroit.  
W. C. KIRCHGESSNER, Grand Rapids.

### Legislation Committee:

A. H. WEBBER, Cadillac.      J. D. MUIR, Grand Rapids.  
H. J. BROWN, Ann Arbor.

### Adulteration Committee:

PROF. A. B. STEVENS, Ann Arbor.      C. C. SHERRARD, Detroit.  
J. O. SCHLOTTERBECK, Ann Arbor.

•

## DELEGATES.

### **National Association Retail Druggists :**

A. H. WEBBER, Cadillac.

H. J. BROWN, Ann Arbor.

E. F. PHILLIPS, Armada.

### **American Pharmaceutical Association :**

PROF. A. B. STEVENS, Ann Arbor.

PROF. A. B. PRESCOTT, Ann Arbor.

PROF. A. B. LYONS, Detroit.

J. W. T. KNOX, Detroit.

O. EBERBACH, Ann Arbor.

**PROCEEDINGS**  
**OF THE**  
**EIGHTEENTH ANNUAL MEETING**  
**OF THE**  
**Michigan State Pharmaceutical Association,**  
**HELD AT**  
**GRAND RAPIDS, AUGUST 14, 15, 16, 1900.**

---

**FIRST SESSION.**

The meeting was called to order by the President, Ottmar Eberbach, of Ann Arbor, Tuesday afternoon, August 14th, 1900, at 3:30.

Invocation by the Rev. Robert E. Grubb, of Grand Rapids.

The next in order being the President's address, Mr. W. H. Burke, of Detroit, Vice-President, was called to the chair, and the President delivered his address, as follows:

Mr. Chairman and Gentlemen of the Michigan State Pharmaceutical Association:

Our convention for the eighteenth annual meeting at the close of a year of marked activity throughout the land in all pursuits under brighter auspices than a year ago, cannot fail to be one of profit and pleasure. With the brighter outlook for the commercial interest of pharmacy, the evidences of a general disposition among retail druggists and alienated branches to get together for the purpose of adjusting their differences, are noticeable out of reports from every quarter. It is very gratifying to note how the pharmaceutical organizations throughout the country have recognized the importance of a strong organization, having in view the regulation of but one of the many purposes of pharmacy, namely, the commercial interest which in this State, as in others, has been sorely demoralized, and they begin to realize the power our profession is capable of exercising in commercial

and legislative affairs, by joining hands and as a unit wielding their power in following out some fixed policy agreed upon. The success of such concerted action, promises to exercise a most beneficial influence on our collegial conditions in the profession and bring about a spirit of good fellowship so essential in a professional occupation for free and unrestricted discussions of observations and experiences, as this spirit develops it will naturally open the way to good fellowship with the physician, thereby establishing a professional recognition as in former years when pharmacy was not so many sided an occupation as at present.

Pharmaceutical organizations of the past have fulfilled their purposes in purely pharmaceutical directions to a fair degree of success by stimulating pharmaceutical education, causing the enactments of pharmacy laws, diverting obnoxious legislation detrimental to the welfare of commercial interest, encouraging pharmaceutical investigations and scientific research; but in their attempts to deal with purely commercial problems, which confront the profession, they have proved a perfect failure. The deplorable commercial conditions of the retail druggist making itself manifest throughout the country, brought about the organization of the N. A. R. D., whose sole purpose is to deal with and confine itself strictly to the commercial interests of the drug business. The influence of this new organization is making itself felt all over the United States to the benefit of the entire drug interests. The change of affairs in our own State, particularly in Detroit, was brought about by the vigorous support given the Detroit association by the N. A. R. D., resulting in a check on further reckless depression of prices and partly restoring some. This process of recovery from depreciated values did not continue as was expected by the more sanguine, but as a halt has been called, giving time for consideration, and a change for the better has been attempted, it is to be hoped that the movement towards more satisfactory commercial situations will continue the more rapidly as sounder conditions are attained.

The failure of the older organizations in our profession in not being more successful is not due to the indifference or incompetency of the associations, but to the failure of an active and large attendance at the meetings and a liberal substantial support on part of the druggists in general. Our Association having identified itself with the N. A. R. D. it is our duty to give it our unrestricted support financially and individually. To comply with our new obligations, this Association will have to provide for a larger income to the treasury, the present annual fee being inadequate to cover current expenses, particularly if the Association will entertain the intention of securing a revision of our present pharmacy law at the next session of the Legislature. I would therefore recommend for your consideration that the annual fee be increased to two dollars.

The coming year is one in which the main attention of this Association will be again directed toward Lansing to prevent obnoxious legislation under the guise of moral improvements, and to secure as above indicated the passage of the revised pharmacy law, through which the inconsistencies of the original will be corrected and the indiscriminate handling of poisons placed under the control of the State Board of Pharmacy. The interests of the State Board of Pharmacy and this Association are identical, that is, to unite the reputable and the educated pharmacists in their effort for a recognized professional standing by furthering through education the proper preparation of the young men who desire to take up pharmacy as a calling, the pros-



perity of the one depending upon the efficiency of the other. The duty to the cause of pharmaceutical education is always important, but under the new order of things it has become imperative.

In touching on the subject of pharmaceutical education as a necessity for conducting a pharmacy I am well aware that many of our fellow members have learned their profession and conducted their pharmacies in a practical way most creditable to themselves without even a first-class school education, to say nothing of the aid of a college of pharmacy, but it does not follow that a better school or college education is not requisite for the future pharmacist. The knight of the pestle in the past had to spend double and more time in years to acquire the knowledge equal to that of the college trained clerk of to-day. He learned how to identify crude drugs by constant handling and even collecting them, and acquainted himself with pharmaceutical processes by actual manipulation. The drug clerk of to-day is a seller of drugs, he handles roots, herbs, etc., by the package, knows them only by name and could not recognize them if the wrappings were removed; he has no opportunity offered for making galenical preparations and acquainting himself with the formula and mode of operating; he is degraded to a mere dispenser of preparations of whose constituents or method of preparing he often knows less than the customer calling for the article. But the very fact that opportunities at the dispensing pharmacy for obtaining knowledge and pharmaceutical skill are lessened, makes the necessity of a thorough college training greater than ever. As pharmacy laws are revised and adjusted to conditions he will be held to stricter account both by law and the public, and the time is fast approaching when law and the public opinion will demand that a person desiring to register as a pharmacist will have to be a graduate in pharmacy from some recognized school. Under the present conditions it is too easy for a young man to become a pharmacist, and as a result too many, stimulated by the popular opinion of immense profits to be made in a drug store without great efforts, start on a career for which they are unfit either by application or by education.

Our Board of Pharmacy has by earnest and judicious management accomplished everything that could be expected by the most exacting, under the present conditions of the law. Reforms as indicated above move slow and cannot be forced, but would it not be timely for this Association to take another progressive step and declare by resolution that it is the requisition of this Association that persons of the future desiring to follow the calling of a pharmacist should qualify themselves by graduation at a reputable college of pharmacy. Past experiences show conclusively that the passing of resolutions does not accomplish the object in view. Resolutions of this nature, however, mark progress, and assist in arousing public opinion, and public opinion in the long run makes law.

In line with reforms alluded to for elevation of the professional standing there is another matter which I consider worthy of the attention of this Association. It is the lack of official recognition of the importance of an intelligent and well qualified hospital service with our State troops and marines. Appreciating the importance of such a service and the respect it deserves, I heartily recommend for your consideration that the hospital stewards of the State Military Service be given the title of pharmacists with rank of lieutenant, as the title of steward is one which implies inferiority, creating the impression of some one in charge of a store house or some other inferior station, and that his salary be in conformity with the rank he holds.

8      *Proceedings of the Eighteenth Annual Meeting of*

Chairman—Gentlemen, you have heard the very interesting and practical address of the President. What disposition will you make of it?

Mr. A. H. Webber, of Cadillac—I move that the President's address be referred to a committee of three to consider and report.

Motion supported and carried.

E. F. Phillips, J. W. Seeley and D. E. Prall appointed Committee on President's Address.

President Eberbach resumed the chair.

President—The next thing on the program is the report of the Secretary.

Secretary's report read, as follows:

SECRETARY'S REPORT.

Detroit, August 10, 1900.

To the Officers and Members of the Michigan State Pharmaceutical Association:

Gentlemen—In submitting my report for the year 1899-1900, I have nothing out of the ordinary routine to offer.

PROCEEDINGS.

The '99 Proceedings were mailed to all members, Secretaries of State Associations, libraries, etc., in December. Cost of issue for 500 copies was \$99.00. I secured 18 advertisements at an income of \$192.00; also a donation of \$15.00 from Fairchild Brothers & Foster, making a total of \$207.00. Deducting cost of postage, for soliciting advertisements, returning "electros," and mailing Proceedings, the approximate profit to the Association, on the issue, was \$90.00.

MEMBERSHIP.

The present active membership of the Association is 273, a falling off of 10 members from last year.

We have lost one member by death, George O. Young, of Lansing, who died April 1 last.

Three members have resigned, as follows: A. O. Hyde, Marshall; D. W. Paton, Almont; James Vernor, Detroit.

One member has been dropped by request, A. O. Hunt, St. Johns.

The following members have been dropped for non-payment of dues, being three years in arrears January 1, 1900:

J. V. Akey, So. Los Angeles, Cal.  
F. E. Atkinson, Gladwin.  
J. P. H. Bradshaw, Davison.  
J. W. Caldwell, Detroit.  
A. B. Clark, Gobleville.  
J. W. Cosford, Mancelona.  
D. A. Cornell, Copemish.

V. W. Cole, Petoskey.  
 R. W. Culver, South Haven.  
 R. J. Cummer, Cleveland, O.  
 A. J. Dayton, Grand Rapids.  
 O. A. Fauckboner, Grand Rapids.  
 O. J. Fay, Carlton.  
 J. E. Gerow, Ovid.  
 N. Hayes, Detroit.  
 Wm. Hessler, Detroit.  
 W. H. Hicks, Big Rapids.  
 J. S. Kirchner, Detroit.  
 A. F. Little, Oarwood.  
 T. H. McGee, Farmington.  
 R. S. McKibbin, Detroit.  
 \* H. D. McKevitt, Ishpeming.  
 H. H. Prosser, Flushing.  
 M. E. Riggs, Cheboygan.  
 S. R. Smith, Grand Rapids.  
 A. O. Speckhard, Watersmeet.  
 H. N. Stanton, Sidnaw.  
 B. D. Vaughn, Albion.  
 S. E. Waite, Traverse City.

Total—29.

160 members have paid dues in full.  
 51 are in arrears for 1 year.  
 30 are in arrears for 2 years.  
 32 are in arrears for 3 years.

273 Total.

#### CASH ACCOUNT.

##### RECEIPTS AS SHOWN PER CASH BOOK.

|                                         |          |
|-----------------------------------------|----------|
| Dues.....                               | \$224 00 |
| Engrossed certificates .....            | 11 00    |
| Initiation fees .....                   | 33 00    |
| Advertisements in Proceedings.....      | 192 00   |
| Donation, Fairchild Bros. & Foster..... | 15 00    |
| Total receipts.....                     | \$475 00 |

##### PAID TREASURER FOR GENERAL FUND.

|               |          |
|---------------|----------|
| 1899.         |          |
| Aug. 21.....  | \$ 53 00 |
| Sept. 11..... | 18 00    |
| 1900.         |          |
| Jan. 8.....   | 150 00   |
| May 15.....   | 100 00   |
| July 12.....  | 100 00   |
| Aug. 3.....   | 45 00    |
| Aug. 8.....   | 9 00     |
| Total.....    | \$475 00 |

10      *Proceedings of the Eighteenth Annual Meeting of*

I have drawn orders on the Treasury for General Fund as follows:

|                                          |                                                                         |          |
|------------------------------------------|-------------------------------------------------------------------------|----------|
| 1899.                                    |                                                                         |          |
| Aug. 8                                   | C. F. Mann, deficiency Secretary's salary.....                          | \$ 29 98 |
| Aug. 21                                  | Order No. 2—J. W. Lowe, Treasurer, balance N. A. R. D. assessment ..... | 17 75    |
| Aug. 29                                  | Order No. 3—Miss C. L. Beamis, stenographer.....                        | 10 00    |
|                                          | Order No. 4—Wm. Graham Printing Co.....                                 | 7 00     |
| Oct. 9                                   | Order No. 6—Wm. Young, engrossing certificates....                      | 4 00     |
| Dec. 14                                  | Order No. 7—Gregory, Mayer & Thom Co., Proceedings and envelopes.....   | 99 40    |
| 1900.                                    |                                                                         |          |
| Jan. 8                                   | Order No. 8—C. F. Mann, postage, etc.....                               | 31 31    |
| July 5                                   | Order No. 12—F. H. West, printing.....                                  | 16 25    |
| Aug. 3                                   | Order No. 13—C. F. Mann, postage, etc.....                              | 28 70    |
|                                          | Order No. 14—C. F. Mann, secretary's salary.....                        | 225 00   |
|                                          | Order No. 15—J. S. Bennett, postage, etc.....                           | 1 15     |
| Total.....                               |                                                                         | \$470 54 |
| Leaving balance in Treasurer's hand..... |                                                                         | 4 46     |

LEGISLATIVE FUND.

Balance on hand from last year, in Treasurer's hands..... \$108 14

I have drawn orders on Treasurer, Legislative Fund, as follows:

|                                           |                               |          |
|-------------------------------------------|-------------------------------|----------|
| 1899.                                     |                               |          |
| Aug. 21                                   | Order No. 1—O. Eberbach.....  | \$ 7 50  |
| Aug. 29                                   | Order No. 5—H. J. Brown.....  | 2 00     |
| 1900.                                     |                               |          |
| May 28                                    | Order No. 9—A. H. Webber..... | 12 50    |
|                                           | Order No. 10—H. J. Brown..... | 5 50     |
|                                           | Order No. 11—J. D. Muir.....  | 4 00     |
| Total.....                                |                               | \$ 31 50 |
| Leaving balance in Treasurer's hands..... |                               | \$ 76 64 |

The financial condition of the Association is a trifle better at the close of this year than last, when a slight deficiency existed. We are, however, confronted with an assessment of the N. A. R. D. of \$115.00, for which there has been no provision made and which must be paid prior to the annual meeting of the N. A. R. D. September 12-14 if we are given representation. It is very apparent that the future income of our Association must be increased. The present revenue from dues does not nearly pay our running expenses, and were it not for the material assistance given us by the advertisers in the Proceedings we would be in a very helpless financial condition. I feel constrained to, very forcibly, call your attention to the necessity for action at this meeting on this question.

Respectfully submitted,

CHARLES F. MANN, Secretary.

President—The report is referred to the Executive Committee. The next on the program will be the report of the Treasurer.

## TREASURER'S REPORT.

Lansing, Mich., Aug. 10, 1900.

Michigan State Pharmaceutical Association. In account with J. S. Bennett, Treasurer:

## LEGISLATIVE FUND.

|         |                                  |           |
|---------|----------------------------------|-----------|
| 1899.   |                                  |           |
| Aug.    | To balance.....                  | \$ 108 14 |
| 1900.   |                                  |           |
| Aug. 21 | By O. Eberbach, Order No. 1..... | \$ 7 50   |
| May 28  | Jno. D. Muir, Order No. 11.....  | 4 00      |
|         | A. H. Webber, Order No. 9.....   | 12 50     |
|         | H. J. Brown, Order No. 10.....   | 5 50      |
|         | H. J. Brown, Order No. 5.....    | 2 00      |
|         |                                  | <hr/>     |
|         |                                  | \$ 31 50  |

## GENERAL FUND.

|          |                               |          |
|----------|-------------------------------|----------|
| 1899.    |                               |          |
| Aug.     | To C. F. Mann, Secretary..... | \$ 53 00 |
| Sept. 13 | To C. F. Mann, Secretary..... | 18 00    |
| Dec.     | Pabst Brewing Co.....         | 12 16    |
| 1900.    |                               |          |
| Jan. 16  | To C. F. Mann, Secretary..... | 150 00   |
| May 17   | To C. F. Mann, Secretary..... | 100 00   |
| July 13  | To C. F. Mann, Secretary..... | 100 00   |
| Aug. 7   | To C. F. Mann, Secretary..... | 45 00    |
| Aug. 8   | To C. F. Mann, Secretary..... | 9 00     |
|          |                               | <hr/>    |
|          |                               | \$497 16 |

## DISBURSEMENTS.

|         |                                                     |          |
|---------|-----------------------------------------------------|----------|
| 1899.   |                                                     |          |
| Aug. 21 | By C. F. Mann, General Fund, Order No. 27, balance. | \$ 29 98 |
| Aug. 29 | By J. W. Lowe, General Fund, Order No. 2.....       | 17 75    |
|         | By Miss C. L. Bemish, General Fund, Order No. 3.... | 10 00    |
|         | By Wm. Graham Printing Co., Order No. 4.....        | 7 00     |
| Dec. 26 | By Gregory, Mayer & Thom Co., Order No. 7.....      | 90 40    |
| 1900.   |                                                     |          |
| Jan. 16 | By C. F. Mann, Secretary, Order No. 8.....          | 31 31    |
| July 5  | By Frank H. West, Order No. 12.....                 | 16 25    |
| Aug. 7  | By C. F. Mann, Order Nos. 13-14.....                | 253 70   |
|         | By J. S. Bennett, Order No. 15.....                 | 1 15     |
| May     | By Wm. Young, Order No. 6.....                      | 4 00     |
|         |                                                     | <hr/>    |
|         | Total .....                                         | \$470 54 |
|         | To cash balance, Legislative Fund.....              | \$ 76 64 |
|         | To cash balance, General Fund.....                  | 16 62    |
|         |                                                     | <hr/>    |
|         |                                                     | \$ 93 26 |

J. S. BENNETT, Treasurer.

Secretary—I might state, Mr. President, that the discrepancy between the balances in the Treasurer's and Secretary's reports is due, apparently, to an omission of a present of some kind received from the Pabst Brewing Company on the sale of their malt extract, of which I had no knowledge before I saw that report.

12      *Proceedings of the Eighteenth Annual Meeting of*

President—You have all heard the report of the Treasurer. We will turn that over to the Executive Committee in connection with the Secretary's report. The next in order will be the report of the Secretary of the Board of Pharmacy.

Mr. A. C. Schumacher reported as follows:

To the Michigan State Pharmaceutical Association:

Gentlemen—In accordance with the provision of Act No. 134, laws of 1885, I herewith submit my report as Secretary of the Michigan Board of Pharmacy for the year ending June 30, 1900:

RECEIPTS.

|                                          |                   |
|------------------------------------------|-------------------|
| Balance on hand June 30, 1899.....       | \$ 248 00         |
| Reg. Phar. Renewals for 1900, 3,016..... | 3,016 00          |
| Reg. Asst. Renewals for 1900, 273.....   | 136 50            |
| 172 applicants for Reg. Ph. Papers.....  | 516 00            |
| 103 applicants for Asst. Ph. Papers..... | 103 00            |
| Total .....                              | <u>\$4,017 50</u> |

DISBURSEMENTS.

|                                    |                   |
|------------------------------------|-------------------|
| Paid Treasurer H. Heim.....        | \$3,596 00        |
| Balance on hand June 30, 1900..... | 421 50            |
| Total.....                         | <u>\$4,017 50</u> |

During the year we have issued certificates to licentiates of other Boards of Pharmacy, as follows: By interchange, John R. Hilt, Winneconne, Wis.

Three special meetings of the Board were held, as follows:

Houghton, August 29 and 30, 1899.  
 Detroit, January 9 and 10, 1900.  
 Lansing, May 22, 1900.

Three regular meetings of the Board were held as follows:

Lansing, November 7 and 8, 1899.  
 Grand Rapids, March 6 and 7, 1900.  
 Star Island, June 25 and 26, 1900.

The following table shows the number of persons examined and passed 60 per cent ruling:

|                 | Examined   |           | Passed    |           |           |
|-----------------|------------|-----------|-----------|-----------|-----------|
|                 | R. P.      | Asst.     | R. P.     | Asst.     |           |
| Houghton ..     | 15         | 2         | 6         | 1         | 7         |
| Lansing ..      | 46         | 17        | 15        | 9         | 14        |
| Detroit ..      | 59         | 13        | 17        | 8         | 26        |
| Grand Rapids .. | 58         | 18        | 17        | 10        | 22        |
| Star Island ..  | 69         | 29        | 21        | 16        | 26        |
|                 | <u>247</u> | <u>79</u> | <u>76</u> | <u>44</u> | <u>95</u> |

|                                                            |     |
|------------------------------------------------------------|-----|
| The percentage of Reg. Phar. passed.....                   | 307 |
| The percentage of Reg. Asst. passed.....                   | 556 |
| The percentage of applicants entitled to Asst. papers..... | 555 |
| The percentage of Reg. Phar. that failed entirely.....     | 307 |

Forty-seven complaints of violation of the Pharmacy Law were recorded during the year.

Thirty-nine of the complaints were placed in the hands of the attorney.

Six of the complaints were ordered dropped by the Board, for lack of evidence, etc.

One of the persons complained of went out of business.

One of the complaints is in the hands of the Secretary for investigation.

Found guilty of violation, sixteen cases.

Ordered dropped by attorney on account of lack of evidence, sold out, went out of business, etc., procured Reg. help, etc., twenty-three cases.

Convicted of violation, sixteen persons.

|                                                                  |          |
|------------------------------------------------------------------|----------|
| Total fines and costs since the law was enacted to June 30, '99. | 2,936 38 |
| Fines and costs for the year just ended.....                     | 308 95   |

|            |            |
|------------|------------|
| Total..... | \$3,245 33 |
|------------|------------|

|                                             |           |
|---------------------------------------------|-----------|
| Legal expenses for the year just ended..... | \$ 372 79 |
| Legal expenses previous years.....          | 8,839 58  |

|            |            |
|------------|------------|
| Total..... | \$9,212 37 |
|------------|------------|

Notice was sent to one hundred and five Reg. Phar., and fifty-eight Reg. Asst. to cease to act as Reg. Phar. and Assts., February 1, 1900, as ordered by the Board at the meeting held at Lansing, 1899. Twenty-three Reg. Phar. sent in their renewals before the ten days allowed by the law had elapsed and two Assts. renewed before the limited time.

Eighty-two Reg. Phar. failed to renew.

Fifty-six Assts. failed to renew.

#### SUMMARY.

|                                      |       |
|--------------------------------------|-------|
| Registered Phar. in 1899.....        | 3,099 |
| Registered Phar. added in 1900 ..... | 83    |

|            |       |
|------------|-------|
| Total..... | 3,182 |
|------------|-------|

|                              |       |
|------------------------------|-------|
| Failed to renew in 1900..... | 82    |
| Total number for 1900.....   | 3,100 |

|                                                                    |       |
|--------------------------------------------------------------------|-------|
| Total number of Reg. Phar. that failed to renew to June 30, '99..  | 1,440 |
| Total number of Reg. Phar. that failed to renew to June, 30, 1900. | 82    |

|            |       |
|------------|-------|
| Total..... | 1,522 |
|------------|-------|

|                                                 |       |
|-------------------------------------------------|-------|
| Highest registration number, June 30, 1900..... | 4,623 |
|-------------------------------------------------|-------|

### ASSISTANTS.

|                                                                          |            |
|--------------------------------------------------------------------------|------------|
| Total number, June 30, 1899.....                                         | 324        |
| Added in 1900.....                                                       | 90         |
| <b>Total.....</b>                                                        | <b>414</b> |
| Failed to renew in 1900.....                                             | 56         |
| <b>Asst. Total for 1900.....</b>                                         | <b>358</b> |
| <b>Total number of Assts. that failed to renew to June 30, 1899.....</b> | <b>771</b> |
| <b>Total number of Assts. that failed to renew to June 30, 1900.....</b> | <b>56</b>  |
| <b>Total.....</b>                                                        | <b>827</b> |
| Highest number Reg. Asst., June 30, 1900.....                            | 1,245      |
| Total number Reg. Phar. to June 30, 1900.....                            | 3,100      |
| A gain of one according to report of 1899.                               |            |
| <b>Total number of Reg. Asst. to June 30, 1900.....</b>                  | <b>358</b> |
| A gain of thirty-four according to report of 1899.                       |            |

A. C. SCHUMACHER, Secretary.

President—You have all heard the report of the Secretary of the Board of Pharmacy. What is the pleasure of the Association as to this report?

H. J. Brown, of Ann Arbor—I move that it be accepted.

Supported and carried.

President—Report of Special Membership Committee.

### REPORT OF SPECIAL COMMITTEE ON MEMBERSHIP.

Detroit, August 13, 1900.

To the Michigan State Pharmaceutical Association:

Gentlemen—Your Committee, appointed at the last annual meeting, for the purpose of increasing the membership, reports that after carefully considering the instructions given it, viz: the appointing a sub committees in each county, decided that the probability of securing assistance in this manner was so small, that a letter sent direct to every drug firm in the State would be a surer way of reaching all. A circular letter was therefore mailed to every firm in the State, early in July. The Committee regrets very much to report that the response to this letter was very meagre, and that it has only the applications of 17 to offer with this report.

In violating the instructions given, the Committee trusts that it will not be held by the Association as acting in bad faith. The almost total lack of interest on the part of most of our members in taking up any work for the Association has been so thoroughly established, that the Committee feared that it would be quite impossible to induce enough workers to take up the cause to come anywhere near covering the State.



From the results of its labors the Committee is willing to grant that possibly it has erred. The writer of the before-mentioned circular letter has arrived at one of two conclusions, after an experience of three years in issuing letters, which has embodied much labor to himself and considerable expense to the Association, that either his ability to frame language into convincing form is wanting or that nothing short of personal contact will stir the retail druggists of Michigan into activity.

Respectfully submitted,

OTTMAR EBERBACH.

CHARLES F. MANN.

Secretary—We have the following applications for membership.

Armstrong, Walter A., Concord.  
Bowman, H. D., Almont.  
Billing, George J., Detroit.  
Benedict, Wm. I., Belding.  
Bower, R. T., Petoskey.  
Barth, William, Grand Rapids.  
Blair, Homer C., Albion.  
Droelle, Frank W., Detroit.  
Fournier, Lucien, Grayling.  
Ferris, J. E., Grand Rapids.  
Gleason, A. Wilder, Newaygo.  
Grelenberger, J. O., Okemos.  
Hammond, Walter D., South Bend.  
Hall, William A., Detroit.  
Henning, F. J., Detroit.  
Roys, Herman M., Farwell.  
Jayne, John E., De Witt.  
Krchgessner, Wm. C., Grand Rapids.  
Longyear, Henry B., Mason.  
Lemen, J. Major, Shepherd.  
Magdelener, Max, Detroit.  
Moeller, Joseph C., Detroit.  
McCabe, Alexander, Crystal.  
Neumeister, F. G., Muskegon.  
Robbins, D. L., Detroit.  
Sherman, C. Bruce, Manistee.  
Smith, F. D., Coopersville.  
Taylor, P. C., Mt. Pleasant.  
Way, Allen B., Sparta.

President—You have heard the report of the Committee on New Members. What is your pleasure?

J. W. Seeley, of Detroit—I move that it be referred to the order of general business, to be taken up at regular session. I think it is a subject that deserves our attention and needs discussion.

Motion carried.

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Mr. Brown—I move that the by-laws by which these names have to be referred to the Executive Committee be suspended, and that the Secretary be instructed to cast the ballot of the Association for the election of these members.

Motion carried.

Secretary—Mr. President, before proceeding further with our business, it might be well to read a number of communications I have.

President—If there is no objection, we will call upon the Secretary to read the communications.

Communication from the National Wholesale Druggists' Association to the Michigan Pharmaceutical Association.

C. F. Mann, Secretary.

Detroit, Mich.

This is to certify that the following members have been appointed delegates to the annual meeting, to be held at Grand Rapids, August 14-16, 1900:

H. A. Wetzel, Detroit.

John M. Hinchman, Detroit.

Lee M. Hutchins, Grand Rapids.

J. S. Smart, Saginaw.

E. C. FRISBIE, President.

Mr. Brown—Mr. President, I move these delegates be entitled to the privilege of the floor.

Motion carried.

Secretary reads letter from National Association of Retail Druggists announcing an assessment of \$115.

President—What is the pleasure of the Association concerning this communication?

E. F. Phillips, of Armada—I move that it be laid on the table until future action on the question increasing our annual dues.

Motion carried.

Letter from the Drug Clerks' Association of Michigan read as follows:

Detroit, Mich., Aug. 13, 1900.

Chas. Mann, Secretary Michigan State Pharmaceutical Association, and of the Detroit and Wayne County Retail Druggists' Association:

Dear Sir—On behalf of the Drug Clerk's Association of Michigan. I have the honor to submit herewith the draft of a law which embodies the ideas and requirements of the drug clerks in the way of shorter hours. We earnestly request you to bring this matter to the notice of both the M. S. P. A. and to the D. and W. C. R. D. A. We urge a frank and free discussion of the proposition. We desire an

expression of opinion from the active retailers of Michigan, and in no way can we secure it so well as through the channels above mentioned.

As drug clerks we have no desire to cause strife and bad feeling in the trade. There has been enough of that already. Nor do we want to adopt the methods first used in New York.

In theory it would seem that such differences among those of a trade could be best settled by and among themselves without invoking the aid of the law, but in practice, at least in the drug trade, such settlement is impossible. Many retailers realize the wrong of the present conditions, but admit being unable of themselves to grant any relief as long as the others do not grant the same. To overcome this trouble the easiest and best way is by legislative enactment, which will at once put all on the same footing.

The necessity of some change in the present condition looking toward an easier life for the drug clerk is shown by the lack of competent help. This is a condition that will continue to make itself more and more seriously felt as time goes on. The reason is not far to seek, and it lies in the fact that a clerk, in order to earn a weeks pay has to work from 8 to 10 full 10-hour days.

Under the present law the same education and ability that will enable a man to qualify as a druggist will earn him a better living in other lines of business, and naturally he leaves the drug business as soon as he makes an opening elsewhere.

Relief can not be sought by lowering the standard, rather raise it and make it worth a man's while to be a good drug clerk; and it is to obtain this larger compensation in the way of shorter hours that we are before you now. No less for our sakes than for your own we ask your assistance and co-operation in obtaining the necessary legislative enactment.

If the draft, submitted herewith does not meet with the indorsement of your approval, we should be pleased to have a counter proposition from yourselves, always keeping in mind the fact that some relief must be had.

Trusting to receive a favorable reply from your honored body, we have the honor to remain your most obedient servants,

Drug Clerks' Association of Michigan.

A. M. EDWARDS, President.

Draft of law proposed by Drug Clerks' Association:

#### AN ACT

For the regulation of the working hours of Registered Pharmacists and Registered Assistant Pharmacists in cities of 5,000 or more inhabitants.

The people of the State of Michigan, represented in the Senate and House of Representatives, do enact as follows:

Section 1. No Registered Pharmacist, or Registered Assistant Pharmacist employed in any pharmacy or drug store shall work more than ten hours in any one day; nor shall any owner or proprietor of any pharmacy or drug store require or permit any Registered Pharmacist or Registered Assistant Pharmacist in his, her, or its employ to work more than ten hours in any one day.

The working hours per day shall be divided into turns of five consecutive hours each, and no Registered Pharmacist or Registered Assistant Pharmacist shall work, or be required or permitted to work, more than two turns in the twenty-four hours.

Nothing in this section shall prohibit the working of ten hours overtime during any week for the purpose of making a shorter succeeding week, provided, however, that the aggregate number of hours in such two weeks shall not exceed one hundred and forty hours.

Sec. 2. A failure to comply with any of the provisions of this act shall be deemed a misdemeanor, punishable upon proper conviction thereof, by a fine not less than twenty dollars nor more than one hundred dollars; or in failure of payment of fine, imprisonment for not less than ten days, nor more than ninety days; or both fine and imprisonment in the discretion of the court.

Sec. 3. This act shall apply to cities of 5,000 or more inhabitants.

Sec. 4. This act shall take effect immediately.

President—Members of the Association, you have heard the communication from the Michigan Drug Clerks' Association. What will you do with it?

A. C. Schumacher, of Ann Arbor—I move that it be referred to the Legislative Committee, to be reported on during this session.

Motion carried.

Secretary—Mr. President, there are three communications here from the National Pure Food and Drug Congress that were received some time since, prior to the last convention of that Congress. I don't know whether the Association would care to have them read now or not. It is a matter that our Association has not taken up at all, that I know of. We receive literature constantly from the Secretary of the Congress, but have never been in a position to do anything. We have never had a representative at the meeting. It will take some few minutes to read these communications.

Considered read. Laid on the table.

Communication from Special Committee of the American Pharmaceutical Association in regard to conditions in military service:

Atlanta, Ga., June 5, 1900.

Mr. Charles F. Mann,  
Detroit, Mich.

Dear Sir—The movement which we instituted some time ago in regard to better official recognition of pharmacists in the service of our government has met with considerable success. We are now making a most active campaign in behalf of the pharmacists in the Marine

Hospital Service. The time is ripe for successful work. Will you promptly write to your Senators and Congressmen and urge them to immediately call upon the President, Mr. Lyman Gage, Secretary of the Treasury, and particularly upon the Supervising Surgeon-General of the Marine Hospital Service, Dr. Walter Wyman, and to insist upon better recognition for the Marine Hospital stewards.

These gentlemen are required to be good pharmacists, yet are only given the title of steward, which smacks too much of the kitchen. They are required at the posts of danger where such epidemics as smallpox, yellow fever, cholera and the bubonic plague threaten to destroy our people. The veterinary surgeon in the army ranks as a first lieutenant, and gets a good salary drawn from the taxes of the American people, yet the stewards of the Marine Hospital Service, who stand at the post of danger, where men are dying of contagious diseases, are accorded neither title or pay in keeping with their true character.

The Marine Hospital Service is supported by a tax on foreign shipping coming into the United States ports, and not one dollar of the people. There is now nearly one million dollars surplus to the credit salaries of the Marine Hospital stewards is paid by the American of the Marine Hospital Service, and we most earnestly request you to either see in person, or write the three above named officials, and urge that they accord the title of pharmacists, and a salary of \$125 per month to the Marine Hospital stewards. No legislation is needed for this, only a change of regulations by the Marine Hospital Service. The present position of the Marine Hospital stewards is a disgrace to pharmacy, and their lack of proper recognition by our Government is bitterly felt by the pharmacists in every town and hamlet in the United States, as it is a distinct reflection on our profession. Write one good letter, and make some of your family copy it off for all the Senators and Congressmen of your State. Immediate active work by us all will bring success, and as you wish to see our profession respected, please take your usual active interest in the good cause of pharmaceutical advancement. It is upon such leaders as yourself that the advance of modern pharmacy depends.

Yours fraternally,

GEORGE F. PAYNE.

President—You have heard this communication concerning the condition of pharmacy in the military service. What is the pleasure of the Association?

Prof. A. B. Prescott, of Ann Arbor—I would move that this appeal be commended to the officers of our Association with our most hearty approval, asking their action in behalf of the Association in the general Government, and that the matter of Michigan State legislation be referred to our Legislative Committee.

Motion carried..

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Letter from Mr. James Vernor read as follows:

Mr. Charles F. Mann,

November 13, 1899.

Secretary M. S. P. A.,  
845 Third Avenue, Detroit, Mich.

Dear Sir—Enclosed please find one dollar for my dues to the Association for the current year.

I wish also to tender my resignation from the Association, owing to my having withdrawn from the drug business entirely.

Trusting that the Association may have a long continued and useful existence, and that I may occasionally as an outsider be present at its meetings, I remain,

Very sincerely yours,

JAMES VERNOR.

Secretary—I have read this letter particularly because I think we ought to make Mr. Vernor an honorary member of our Association. He is one of the charter members. I move that Mr. James Vernor be made an honorary member of the Association.

Motion carried.

Secretary—Mr. President, I have here a pamphlet recently received, which is a general form of pharmacy law as amended and approved by the American Pharmaceutical Association, Jan. 18, 1900. As this matter would, perhaps, come up better under a report of our Legislative Committee, I think any reading of it, or any action on it, had better be referred to that Committee.

Mr. Schumacher—I move that it be referred to the Legislative Committee.

Motion carried.

President—Next thing on the program would be reports of delegates. If there are any delegates present, we would be glad to hear from them.

A. H. Webber, of Cadillac, Delegate N. A. R. D.—I move to have the reports deferred until the evening session.

Motion carried.

President—Are there any members here that attended the meetings of the American Pharmaceutical Association? Any reports to be made, we shall be pleased to hear.

Mr. Webber—Mr. President, before we go into that, I have a resolution I would like to notice at this present session, which is as follows:

Whereas, The National Association of Retail Druggists has satisfactorily demonstrated its ability to advance the business interests of the retail drug trade, thereby improving its financial condition;

Be it Resolved, That the Michigan State Pharmaceutical Association reaffirm its loyalty and support and pledges itself to the principles and policies of the National Association of Retail Druggists.

President—You have heard the resolution just read by Mr. Webber. Is it supported?

Resolution supported, and referred to evening session.

Prof. Prescott—Mr. President, you have called for a word from your delegates to the American Pharmaceutical Association meeting. I would say a word regarding the meeting this year. Three of the five delegates from this Association were present at the Richmond meeting. I might say a word regarding one or two features of the meeting at Richmond last May. The first working session of that meeting, that is to say, the hearing of the first section of the Association, the section upon commercial interests, was one of great interest, very fully attended, and showing excellent work. The larger part of the time, in the report of that section, was devoted to a hearing and discussion of the report of the Committee on Practical Pharmacy. Mr. Hynson, of Baltimore, chairman, leading for the most part. The question of trade interests and independent action of the National Association of Retail Druggists received the heartiest support of the Association in every way. Attention was given to this report upon practical pharmacy in the detail work of the retail drug business, which elicited so much interest and so many discussions that it was created a separate section of the Association, to be allotted a committee of separate section in meeting hereafter, and appropriation was made of the funds of the Association for its support.

I might mention in the second place that the section on scientific interests coming next drew out a larger number of papers, I believe, than had been presented in several years before the Association—as many papers as it was possible to hear—as many, probably, as it is desirable to publish.

And in the third place, if you can allow me, the section upon legislation and education, devoted very thorough work indeed to a very careful reading and discussion of the so-called outline of the State Pharmacy Law. The work of the Association upon that was most admirable. Members of the boards of pharmacy of the States—the larger number of the States of the Union, especially—took part, citing results of their experience, and gave their conclusions upon that draft of the law, still counted only a provisional draft, subject to the conditions and relations of each State, or a law which is now before this

body for such use as it may be in Michigan, commended, of course, to the Legislative Committee of this State.

In determining upon the time and place of the next meeting, some matters of very great interest to the pharmacists of the United States were brought forward. The American Pharmaceutical Association adjourned to meet in St. Louis in September, 1901. The hope was quite freely expressed and officially recognized, that the National Association of Retail Druggists may adjourn from its Detroit meeting to meet in St. Louis the same week in 1901, so that these two affiliated bodies may hold joint meeting.

There was, throughout the Richmond meeting, frequent deliberations of a special committee in the council of the Association, entitled the Committee for the Promotion of the Welfare of the Association. That committee took into consideration some quite radical changes in the American Pharmaceutical Association, nothing that had been presented from any quarter, and this plan of joint meeting of two bodies was very much favored by the Committee on the Promotion of the interests of the Association. It might perhaps be over-sanguine to hope now, yet it would be a flattering prospect if we could look forward to it, when the American Pharmaceutical Association, honoring its fiftieth anniversary, could hold meeting with the National Association of Retail Druggists, and with the National Wholesale Druggists' Association, and with some other affiliated bodies, possibly the American Chemical Society, in a gathering of societies that should rival in importance some of the great national gatherings which gain the largest sessions.

One thing more. The American Pharmaceutical Association gave origin to a society for pharmaceutical schools and colleges, an association of pharmaceutical faculty, which will meet hereafter with the American Pharmaceutical Association.

I would like a word from Prof. Stevens, who was delegate, both to the Richmond meeting and to the Put-in-Bay meeting.

Prof. A. B. Stevens, of Ann Arbor—I don't know that I can add anything to the report that has already been made by Dr. Prescott. Certainly he can give us all that was to be had out of it, being President of the Association. Perhaps just a word in regard to this proposed pharmacy law. I do not feel that we can place that too prominently before an organization of this kind. The American Pharmaceutical Association is not a body that can pass, nor that can secure the passage of a law, except the States themselves take hold of the work. They do not frame a law, except as it would be used for a model by the different associations. The framing of this law has been in charge of one who has given more time to it than others could well give it, and one who is well qualified, perhaps, being a lawyer and a pharmacist. Prof. Beal, who has worked on these and has given



us not only his result but results from correspondence with different pharmacists throughout the country, and it is hoped that many points will benefit other associations as well as our own—assist them in framing a model law.

Mr. Seeley—I move that these reports be accepted and entered in the minutes, to be brought up for future discussion, if necessary.

Motion carried.

Reports referred to order of general business.

President—There was another committee on our list—Committee on Revision of the Pharmacopoeia. We have two members present that although they were not on our committee, were present at the meeting of the Revision Committee, and we would like to hear from them in regard to the action taken at the session. Dr. Prescott and Prof. Stevens were representing the University of Michigan.

Prof. Prescott—Prof. Stevens is now a member of the Committee of Revision. We would all like to hear from him.

Prof. Stevens—I had hoped that this meant something else—this Revision Committee of the Pharmacopoeia. I had hoped at least that it would mean that the members of this committee would furnish something that would be of service to those who are now working upon the revision of the pharmacopoeia. I might say this, possibly, that I have heard the report, the statement made, that the pharmacopoeia was not as it should be. There are always people who are ready to criticise a work of this character. You must remember that every organization is entitled to representation in this convention for the revision of the pharmacopoeia, and you sent your own delegates there; therefore it is part of your work just as much as it is the members who work upon it, and I do not feel that your work ought to stop simply with sending delegates. I think you ought to furnish something that will be an aid to the committee for work and I understood that there was something to be brought before this organization asking for some aid. Now, as I remember it, the general Committee of Revision had appointed a member who is to communicate with the different pharmaceutical associations and also one who is to communicate with the different medical associations of the United States and to get an expression of opinion in regard to the additions and omissions, and various other things that might come in, that would be of interest to pharmacists in general; and if that had been done, I should have hoped that we would have some sort of an expression upon that subject. I will say that they have already begun work and that a circular has been sent out to the different members of the committee with a long list of articles that it has been proposed to drop

from the pharmacopoeia and another list which has been proposed to add to the pharmacopoeia. A few of our druggists in Ann Arbor came together and expressed an opinion as to the list, and I wish that different parts of the country might do this very thing, and then we would have a pharmacopoeia that would have an expression, at least, from the different pharmacists of the country. The actual work of experiments upon different methods, etc., has hardly been commenced. A committee has been divided into sub-committees to take up different sections of the work. The one in which I am especially interested at the present time is upon the standardization of drugs, and I have in my pocket a list of articles that it was proposed to standardize as sent out by the chairmen of the sub-committees; but the other members of the committee have not thought best to go into it as extensively.

Now, this is a subject that, it seems to me, many members of this organization would say something upon and express opinions as to what substances they thought it was best to have standardized. For instance, such as opium, cinchona, etc.; it is proposed to add to it many others. There are many simple drugs on which there is a question, and we might very easily spend a little time and get some expression of opinion from members who are interested in the work. I might also add that it is proposed to combine the word "fluid extract" and make it one word, so that all the fluid extracts will be placed in a list by themselves and the other extracts in another list. That is generally in favor, I think, among those who have considered it. You know the pharmacopoeia contains under extracts the ones under the name of extract, and the other fluid extracts.

I don't know that I care to say any more about this unless there is some question that I can answer in regard to the work that is being done. If there is, I shall be glad to do so now, or at any other time.

F. W. R. Perry, of Detroit—I would like to ask about synthetic preparations.

Prof. Stevens—It has been under discussion, but no decision has been arrived at up to the present time. The general impression is at the present time that the synthetics, such as have been established and placed and proved themselves worthy, shall be admitted under certain conditions, and not to notice preparations like antikamnia, a combined preparation, and preparations from mixture of two or three other preparations. Under certain restricted conditions they should not be excluded from the pharmacopoeia simply because it is controlled by a method of manufacture of a party, upon a method of manufacture, or even upon the names.

A. S. Parker, of Detroit—What is the trend of information in regard to synthetics—introduction of them—under their registered names or under their chemical names?

Prof. Stevens—Well, as to the name which should be used for any particular preparation, it has not been discussed at the present. I think a great many of the pharmacists are objecting to the introduction of entirely new names, that is, coining new names for a preparation and giving a name like phis—, or something of that kind, to a preparation which is known entirely under another name. It is more or less misleading to pharmacists.

It was thought like this, that it was not feasible to introduce the standardization of drugs generally by physiological names. Perhaps you have also noticed a considerable discussion about the introduction of acetic fluid extracts. I think the general opinion of the pharmacists is against any introduction of any lengthy class made by this process. At the present time I think they have not been sufficiently tested as to warrant their introduction in the pharmacopoeia; at least, that is my opinion at the present time. Some of them that were proposed have not met with the approval we expected to meet. Some of them do not contain the actual constituents they were thought to contain.

Prof. Prescott—With regard to physiological standardization: A resolution was passed by the convention at Washington not to adopt methods of physiological standardization. Dr. Houghton, who is, of course, a very able specialist in this work—Dr. Houghton, of Parke, Davis & Co., coincided at that time with that conclusion. I asked him about it. It was deemed that the difficulties of standardization by effect upon animals were perhaps too great. The day after there was a reconsideration of the subject, and a good deal of discussion upon it. Motion was made to permit the introduction of anti-toxine under physiological standardization, and I will not be sure just what the final vote was. I think some liberty was left to the Committee of Revision. The remark was made that anti-toxine was peculiar—about as well established as vaccine. We should have to revise our procedure regarding vaccine if we adopted numerous others, as anti-toxine. I am not sure but what the Committee of Revision has liberty to adopt anti-toxine with such terms of description, of definition and standards of purity as would perhaps be equivalent to the physiological standardization.

President—You have heard the report made by Prof. Stevens. It would be well to defer it for further discussion later on in our meeting.

Prof. Prescott—I would like to give notice that I have a paper from Dr. Lyons, who is unable to be here, regarding standardization of drugs, and asking some action of this Association at this meeting upon that point, which will come up at to-morrow morning's session, I suppose, in the time given for Committee on Pharmacy.

President—Dr. Lyons was one of the delegates of our Association, and I presume if he has that matter under consideration, it will be acceptable as part of his report.

Prof. Prescott—Mr. President, It is with very great regret that Dr. Lyons is absent from this meeting. He has suffered quite an acute illness. He has had one of the largest of the diseases of Job, and it has quite reduced his strength. He is now very much better, and hopes to be on duty again quite soon. This is the paper which he offers upon the subject just mentioned:

#### PHARMACOPOEIAL STANDARDIZATION.

BY DR. A. B. LYONS.

One of the most important questions that will come before the Committee on Revision of the U. S. Pharmacopoeia for 1900 is that of the standardization of a considerable number of vegetable drugs, and of galenical preparations made therefrom.

The subject is in the hands of a special sub-committee, consisting of the men who have given to this subject the most thought, and who may be trusted to carry out the most intelligently what may appear to be the will of the body of pharmacists and physicians they represent. The very fact, however, that they are experts, and possibly enthusiasts, may cause them to overlook considerations which the average pharmacist would be quick to see. It seems to me, therefore, very desirable that the subject be discussed at some length by the various State Pharmaceutical Associations and other bodies of practical pharmacists, and that the views elicited in such discussion be brought to the notice of this sub-committee.

Assuming that there are a dozen or more drugs whose therapeutic strength can be determined quite accurately by assay, but which are liable to vary greatly in strength, the question arises, first, whether the pharmacopoeia should adopt for each such drug a definite standard of strength, an article either weaker or stronger being excluded by the pharmacopoeial definition of the drug.

Belladonna leaf, for example, would be required to show an assay by a prescribed method exactly 0.35 per cent. of atropine, or possibly between 0.33 and 0.38 per cent. Theoretically, this plan is highly scientific and satisfactory. Galenical preparations made from such a standardized drug with reasonable care would be uniform in strength. There would be no need of any standardizing of such preparations.

But whence is the retail druggist to obtain his supply of the standard drug? Laws might be enacted requiring that all belladonna offered for sale for medicinal use have a certificate of assay, as is required in many States in the case of commercial fertilizers. No such laws now exist, and it does not seem to me possible that there could be profit enough in the business to attract private enterprise. Success, indeed, I believe might reward enterprise and enthusiasm expended in this direction.

Further, drugs containing volatile or perishable active principles (e. g., coca, conium), must have a certificate of very recent date, or it will be of no value whatever.

In absence of certificates of assay, the pharmacist will have to assay the drug himself, with antecedent probability that it will not conform to pharmacopoeial standard. The cost of the assay, in time alone, would be several times greater than that of the drug.

Of course, under these conditions, in a State having strict pure drug laws, it will be possible to subject the pharmacist to no end of trouble by insisting on the U. S. P. standard.

Second. But suppose we simply require a minimum standard of strength for each drug, rejecting, for example, all belladonna leaves containing less than 0.25 or 0.3 per cent. of alkaloid. This would be a little better—easier, at least, to live up to—but there would have to be United States laws excluding from the country everything below standard, and after all, some drugs would deteriorate after being admitted.

In this case, the standardization would have to be of the galenical preparations, and would have to be done by the pharmacists. There would be less inclination than ever to make up tinctures, etc., particularly in small quantities.

Third. It may be recommended to adopt standards for only a very few crude drugs, requiring that the galenical preparations be made by assay.

The necessity for having standards for all powerful galenical preparations for which an assay process is known, goes without saying. Either galenicals themselves must give place to alkaloids, glucosides, etc., or else the physician must have guarantee of the strength of preparations he prescribes.

The question will simply be, shall this work be done, as it is now largely done, by manufacturing pharmacists, or will the retail druggist take it up? I imagine that it will be only in exceptional cases where it will pay the druggist to do this.

I have presented this outline of an analysis of the problem in the hope that it may draw forth full discussion, resulting in resolutions setting forth the views of the Association, to be transmitted to the chairman of the sub-committee on standards, Dr. Alfred R. L. Dohme.

A. B. LYONS.

President—You have heard this communication of Dr. Lyons concerning the standardization of drugs. What is the pleasure of the Association?

A. H. Webber, of Cadillac—Mr. President, I move that the discussion of this paper be taken up at the to-morrow morning session.

Motion carried.

Secretary—Mr. President, in order to bring properly before our organization the question of increasing our dues, I would like to offer a resolution now, that Section 4 of the By-Laws be changed to read, "that the annual dues be \$2 per year instead of one." It can be taken up at the following session.

Resolution supported.

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President—We will carry this resolution over until we hear report of committee covering same point.

Adjourned to 7:30 p. m.

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SECOND SESSION.

Meeting called to order at 8 p. m.

President—The first matter on the program is the report of the Executive Committee. Because the Executive Committee is not ready to report, we will proceed to take up the report of Committee on Trade Interests.

Mr. Perry, Chairman of committee, read the following report:

REPORT OF COMMITTEE ON TRADE INTERESTS.

Mr. President and Members of the Michigan State Pharmaceutical Association:

The Committee on Trade Interests beg leave to make the following report:

The past year has been an uneventful one as regards trade matters in the State at large.

The volume of business has been up to the average, and outside of cutting centers, the profits satisfactory.

Instead of the chairman of this committee making an individual report, I have called on all the members for reports, which they have responded to promptly, and are herewith presented:

"Ann Arbor, Mich., July 17th, 1900.

Dear Sir—Yours at hand. In reply will say that the drug business just at present is not very brisk, but has been fairly good.

In regard to prices will say that Ann Arbor is not troubled with cut prices; our smaller places around us, like Chelsea and Dexter, have cut prices, have done so for the last three or four years, but we pay no attention to them.

One thing of interest to the drug business is to work for shorter hours. As long as the druggists are and will make slaves of themselves by staying in harness all day and very nearly all night, as well as all day Sunday, giving the public to understand that we will do it as long as there is a penny in sight, I do not think it raises the standing of our profession very much. In Ann Arbor our drug stores are all closed at half-past 9 in the evening, and on Sunday we open from about 8 in the morning to half-past 10, and from 6 to 8 in the evening, and we have no more people die than in any other place, and we get along very nicely with our doctors.

Yours,

A. C. SCHUMACHER."

"Armada, Mich., July 21st, 1900.

Dear Sir—In reply to yours of recent date, would say that everything is running smoothly in Armada. My competitor and I are on friendly terms, and are getting full prices.

Complaint reaches me from Capac, however, that there are two general stores there who are selling all patents at cut prices. The two drug stores there have not begun to cut yet, for they are in hopes we can do something for them. I have written the firm from whom these general stores are reported to have received their goods, asking them to discontinue selling them. Have just received their reply, stating that they will decline all future orders from those general stores, as they are desirous of upholding the legitimate drug trade in every way.

I don't know as I have any further suggestions to offer. I am anxiously waiting for our meeting, and that of the N. A. R. D. in Detroit, and hope that some good may come out of them. It seems as though, when the wishes of the retailer are apparently respected with so much alacrity, there was some power behind the throne that was held in awe.

I think at our meeting we ought to do more than advocate county organization. We ought to appoint some person as a county organizer, empowered to go from county to county, where they are not already organized, and get Michigan banded together as they never have been before. Of course, the sticker is paying the expenses. I think the trade has seen that organization can, and will, and is doing something towards bettering the condition of the retail druggist, and I believe they will be easily led into county organizations. We ought to devise a plan whereby the county organizations would be auxiliary to the State Society, and each member would become a member of the State Society, and through it of the N. A. R. D., or they could join the N. A. R. D. as an association (with privilege of sending delegates), besides belonging to the M. S. P. A.

Yours,

E. F. PHILLIPS."

"Cadillac, Mich., July 20th, 1900.

Dear Sir—Replying to your recent communication, would say that after consulting with the other druggists, I am pleased to report the condition of business in this city as satisfactory. Fair profits are realized on general merchandise, and regular prices on patents strictly maintained.

Local meetings have been held from time to time throughout the year. No serious grievance has been encountered.

It would seem that good local organization is essential for direct benefit, and as an aid to the M. S. P. A. Think if greater interest could be infused into this paramount feature through a State organizer or otherwise, much might be accomplished.

Yours respectfully,

E. E. RUSSELL."

"Cadillac, Mich., July 30th, 1900.

Dear Sir—Replying to your letter of recent date, would say that Cadillac has always maintained full retail prices upon all patents, and so far as I am able to determine, all the small towns in this

part of the State have stood by us in this respect. As a matter of fact, I believe there is little cutting going on north of the F. & P. M. line. I am conversant with affairs in Traverse City and other northern towns, and find the same conditions prevailing there. When we desire to locate cutting in its most aggravated form, we go to large trade centers, like Grand Rapids and Detroit, places that ought to set us examples, as they are supposed to be the centers of intelligence and leaders in all things that tend towards a healthy trade condition.

We only have one town in this part of the State that we are really and truly ashamed of, viz., Big Rapids, and yet our feeling ought to partake more of pity than shame, inasmuch as she has passed to her long rest many years ago. General trade conditions in this part of Michigan the past year have been exceedingly good, all small stores reporting a healthy, growing business. I believe that this covers the ground included in your questions.

Very truly yours,

A. H. WEBBER."

We are about to enter upon the most important year as regards commercial interests of the retail druggists that they have experienced at any time in this country. We refer to the success or failure of the plans of the N. A. R. D., and we claim the result is in the hands of the retailer. The great danger lies in the general apathy of the party who will receive the most benefit from their successful operation.

Your Chairman, from a personal observation, which covers a large part of the State, must confess that the retail trade do not seem to appreciate the danger that they are in. As an example, take almost any of the cities of 5,000 to 10,000 in the State, and it is exceedingly rare to find them organized. They do not imagine that some day they will find a commercial pirate in their midst, and they unprepared to act in unison to combat his tactics. There is little use of my extending my remarks on these lines, as it resolves itself into organize and remain organized.

Several of the committee have suggested a State organizer, and it seems to me that that is what we are coming to, and that takes money, which, by the way, is another reason of failure in a great many of our organizations. In the past individuals have given their time and money, either of which they could ill afford to do, for the benefit of us all, and now it is time that we look the matter squarely in the face and make up our minds to contribute liberally to all of our organizations. We have a good example set us in this regard by our brother druggists in Pittsburg, Cleveland and Louisville, where they pay from \$6 to \$12 annual dues, and get results accordingly.

As far as your committee have been able to learn, the following cities are organized. Detroit, Grand Rapids, Saginaw, Jackson, Kalamazoo and Ann Arbor.

Saginaw has the best local organization in the State, and has accomplished what she set out to do. They have thirty-two drug stores, and thirty-two members in their society. Prices were as badly demoralized there as in any city in the State, and they got together like a lot of sensible business men, settled their personal differences, and are reaping the benefits.

Grand Rapids has recently perfected an organization, which gives promise of good results.

F. W. R. PERRY,

Chairman.



President—The Association has heard the report of the Trade Interests Committee, what is the pleasure of the meeting?

Mr. Mann—Mr. President, I move that we give the Committee on Trade Interests a vote of thanks for the very able report, and accept the report.

Motion carried.

President—I suppose this report ought to be taken up and discussed. I think it worth the interests of the Association to do it.

Mr. Parker—I think, Mr. President, the results to be obtained are exactly proportionate to the energy of any society or state. I have been conversant with what has been done, particularly in the northern part of Ohio—Cleveland. Aside from the local association, which has been strong for a number of years in Cleveland, they are perfecting what I think they call the Northern Ohio Association. If I am correctly informed, they have an organizer and have regularly elected officers representing that portion of the State. I also understand that it is the intention to extend this organization until it comprises the entire State of Ohio. This, I believe, is entirely independent of the State Association and deals entirely with commercial matters. A number of us visited Cleveland early in the spring and learned something of what was being done in that locality along the line of trade interests, and it seems as though what can be done in Ohio could be done in Michigan. I do not believe the financial problem is a very large one in the State of Michigan. There are not many cities above 6,000 inhabitants in the State of Michigan, and I firmly believe if the matter were taken in hand with a proper amount of energy we could thoroughly organize the whole State. I believe this report of the Chairman of Trade Interests should be taken up and discussed by a majority of the members present here to-night. It is one of the most important things we have to do with. As has been said in the report, no one knows how soon an enemy may appear in our midst.

D. E. Prall, of Saginaw—Mr. Parker thinks we could be very easily organized. What plan would you suggest?

Mr. Parker—The State organizer. It is a matter of one visit to a town of 5,000 inhabitants. An organizer to spend one night, possibly, would accomplish his purpose. I may be very sanguine in the matter, but it seems to me that would be a sufficient time.

Mr. Perry—I think if we could find a man with the ability of the organizer of Ohio, we would be able to do very well. He has certainly done very good work.

Mr. Kidder—There has nothing been said with which I do not heartily agree. It is purely a matter of business. Look over the re-

sult of any other business in this country, and nearly any other business but the retail drug business has been organized and they have paid their man for doing it. It is a matter which we ought to take up in a businesslike way and hire somebody to do it. That is the only way to do it. It seems to me the most successful organizers I have been able to locate anywhere have been men that are not retail druggists.

Secretary—The question of an organizer is a very simple and easy thing to talk about, but it requires one thing we haven't got, and that is money. If we can find somebody who is ready to go out and take chances on getting enough money to pay himself as he goes along, I think we can do it. Certainly, the Michigan State Pharmaceutical Association is not in condition to provide an organizer, and until you provide means for paying such a man, I don't think there is much sense in discussing it.

Mr. Seeley—I believe there are no men in this country that are any brighter or better fitted to take care of their business interests, if they would wake up and get a little snap in themselves, than the retail druggists. There is no question but what the organization of the druggists of the State would be of great benefit. We ought to raise sufficient money to pay an organizer, and a good one, to take up this matter. If we look at it from a business standpoint, we know that it will be for our interests to put our hands down into our pockets and pay \$10 each, if it is necessary, to organize thoroughly in all parts of the State. Our dues are low—\$1 a year—and it is perfectly ridiculous for us to think we can accomplish anything on a dollar a year. If we would increase our dues, I believe we would increase our membership. If we could put a man into the field who has some snap in him, there is no reason why we cannot put ourselves in a way to make money. We should look at this matter in a business way, and if we deem it advisable to increase the dues to \$5 a year or \$10 a year, we should do it. I believe the druggists of Michigan could easily put a capable man in the field and pay him a good salary and get their money back in six months. I don't believe a man could go into a town and accomplish what he ought to do in one day. I believe he ought to take two or three days. In order to have a thorough organization you have got to get the druggists to understand the situation—to get them enthused and leave them thinking they have something before them. To go in and give them a talk and elect officers, then drop it—I think you might expect failure there. It is a difficult matter to say how long it would take to organize the State, but it seems to me in a year's time a great deal might be accomplished.

Mr. Prall—Mr. President, this work of local organization is so intimately associated with the work of the National Association, to get the matter before us, I suggest, without dropping the discussion of the

subject, that we have the report of the delegates to the National Association meeting, which will be read by Mr. Webber, and I have something to say along that same line, and we would, perhaps, get some points on this whole subject matter.

President—If the members have no objection, we will take up the report of the delegates to the N. A. R. D. meeting.

Mr. Webber reads report as follows:

Gentlemen of the M. S. P. A.:

Your delegates to the N. A. R. D. understand perfectly well how next to impossible it would be for us to make a report at this time that would differ materially from what you already know. We fully appreciate the fact that the work of the N. A. R. D. during the past year, and the proceedings of our last annual meeting, every druggist in this convention is thoroughly conversant with, and yet we are led to believe that there is an inside history that is not generally known or understood and could only come through personal contact with its members. We desire particularly to call your attention to the personality of this convention. Some, no doubt, really believe that the N. A. R. D. is composed mainly of men with extreme views on all questions that have to do with the drug trade, but this is far from the truth, as a matter of fact, a more conservative body of men never sat in any convention, nor do I believe it possible to find anywhere a more intelligent, earnest, hard-working body of men than those who made up the membership of the N. A. R. D. convention of 1899, and the work inaugurated by them has since been carried out so faithfully by the officers of the N. A. R. D. speaks volumes for the conservative and business-like methods of that body. This convention was made up of the best working element of the State and local organizations throughout the United States. It represents, so to speak, the war-horses of the State organizations, the men through whose untiring efforts, personal work and zeal, the interests in State associations have been kept up. The main cause of poorly attended association meetings is purely selfishness; a large percentage of the druggists are not willing to help in any cause unless they can see the "almighty dollar" coming back to them directly from their efforts, but we have in the N. A. R. D. a body of men who are working with unselfish zeal for the good of the cause, and who are willing to sacrifice both time and money in behalf of the best interests of the retail druggists of the United States, and all they ask in return for this sacrifice is your hearty co-operation. The work for the past year of the N. A. R. D. is a matter of history, and while perhaps this work seems slow to us, enough has been done to assure us that permanent and good results will soon follow and the druggists throughout the United States will have cause to rejoice. We are not here to say that the work of the officers of the N. A. R. D. is beyond criticism, perfection is one of the unattainable things in this world, but we do believe that they have made fewer mistakes than any similar body of men representing, as they do, so many diversified interests in the history of any organizations in this or any other country. We hope that the N. A. R. D. and its work will be thoroughly discussed at this meeting. If there is anything that is not thoroughly understood, any question asked will be cheerfully answered by Mr. Prall, who is one of your delegates,

and who is also a member of the executive committee of the N. A. R. D. In conclusion, we desire to say to the members here assembled, if you want to become really and truly enthusiastic, get acquainted with the workers of the N. A. R. D. Do not miss the annual meeting in September at Detroit. We as a state ought to feel highly complimented that she holds her meeting within our borders, and we ought to make it a personal matter to see that Michigan sends a large and enthusiastic delegation.

A. H. WEBBER,

A. S. PARKER,

D. E. PRALL.

President—Members of the Association, you have heard the report of the committee. What is your pleasure regarding the report?

Mr. Parker—I move it be accepted and placed in the minutes.

Motion carried.

Mr. Prall, another member of the committee, reads his report.

Two years ago a call was issued from Chicago to the various organizations of retail druggists throughout the country to send delegates to a convention in St. Louis for the purpose of organizing a National Association of Retailers. About half the States in the Union were represented, and since then nearly every State has, through local or State Associations, affiliated with the National Association of Retail Druggists.

The main object sought was to control the distribution of goods so that proprietary articles could be handled by retailers who were not willing to handle them at a profitless price.

The work of the Association was intrusted to an Executive Committee of five. The first annual meeting was held a year ago in Cincinnati. Two valuable officials—Secretary Wooten, of Chicago, and the Chairman of the Executive Committee, Mr. Holliday, of Topeka—were re-elected to office, two members were added to the Executive Committee, and the work was continued along the lines followed the first year. No dissensions, disaffections or opposition have been allowed for a moment to swerve the managers from the purpose in view. The most persistent, tireless and well-directed efforts ever put forth for the retailer is the record of the National Association.

After two years' labor this present month sees the consummation of one important step. A plan has been agreed upon by the representatives of the retailers by practically the entire wholesale trade of the country and by most of the large manufacturers of proprietary medicines. With the details of this plan you are acquainted. The responsibility for perfecting the operation of this plan is now with the retailer. The greatest hindrance to the work of the National Association has been the apathy of the retailer. It is more difficult to overcome the inertia of this massive body of retailers than to surmount the obstacles of the opposition.

D. E. PRALL.

Mr. Prall—We get to this point we were just discussing here of local organization, and you know that this plan contemplates the designation of the cutter in each locality by 75 per cent of the retailers. Now, it is up to the retailer to help himself, and the reason I wanted to present this was that we were discussing that very point—how shall we organize? To give an example of some of the work done by the National Association: The President has traveled 2,000 miles while the temperature was at no time under 100 degrees, to attend two State Association meetings. He had to leave one Association before it closed to reach the other. That sort of work has been done by this man and he has spent liberally of his own means. He told me he had spent about \$500 in the last year. There are reasons for this apathy, some of them are good reasons and some of them very bad. One reason, as I look at it, is the young men in the business. They hesitate in such a vital point as this about taking the lead, and the older men are conservative about pushing ahead. Now, it seems to me, and it has occurred to me more forcibly during this meeting, that our salvation lays more and more through this National Association. Why not raise the money and pass it through the hands of this National Association for organization locally? The question has come up more than once. There is a very good organizer down in Indiana—Mr. Timberlake, he is Secretary of the Indiana Association. He has done a great deal of work and he has done it in the most systematic manner. He stopped for lack of funds, but the wholesalers have put money in his hands to help him organize in Indiana. He has gone into little places where there were only two or three druggists. He organized several counties. In most of these places, after he would get them organized, the question of expense would come up, and most of them would furnish his expenses. But a man cannot go along and take the chances of getting that money. From some source the money must come to pay the organizer. The National Association would very gladly send money. We voted to raise this appropriation from 25 to 50 cents per capita.—25 to 50 for the purpose of employing Mr. Holliday, the chairman of our committee, for the purpose of helping the wholesalers. Where would we have been to-day without this money, coming, you might say, from an outside source? Mr. Holliday had spent but one week at home. He had been constantly away at work, and no one knows how laborious it has been, and the retailers, it strikes me, have been very fortunate in getting Mr. Holliday, as well as Mr. Wooten, our Secretary. Last year when I went to the annual meeting, I appealed to the trade. I went to the wholesalers of this State and Missouri, and I went to Cincinnati with \$250 in my pockets. I felt no hesitancy in asking them for the money and they responded liberally. Now, I would be ashamed to go to those branches for money again, but I do think we could raise a very respectable sum, and it would only go toward paying for the benefits that the retailers take, or derive, from the benefit of this Asso-

elation. I am going to ask the retailers while here to start a subscription paper for money. I think that, including the dues from this State and from all the sources that we could get money, it would not be difficult for us to raise a thousand dollars. Michigan occupies a prominent position and we are glad to occupy a prominent position in a work of this sort, and as I say, I am going to ask for a subscription from the retailers, and I think that is one way of getting toward this local organization. It need not deter anybody from organizing locally. They need not work for what the National Association can do. Many States are in the same sort of dilemma that we are, and it will be worked out through the National organization. By employing a Secretary to devote all his time to this Association, we would then have an organizer, but we find the work so much that while Mr. Wooten has found it possible to go to several places,—he would go to counties where he has been notified, yet that is not enough. We ought to employ, at a lower figure, perhaps, than such a man would cost, somebody for an organizer, and I think that the National Association could help us in this local organization, but we must have money—we must look at it in a liberal light in our giving.

Mr. Seeley—I would like to know how much of our dues to the National Association remain unpaid this year?

Secretary—\$115. Nothing in the treasury to pay them.

Mr. Seeley—I think, gentlemen, we ought to fall in with Mr. Prall's idea—to put our hands down in our pockets and pay this assessment that we owe the National Association, and get our name clear before the National meeting next month.

Mr. Parker—As I understand it, unless we do so, we cannot have representation as a State.

Secretary—I would suggest that to-night is not a very good time to take this matter up. We are pretty sure of a good attendance to-morrow.

Secretary—I would like to refer back, Mr. President, to a little paragraph in the report of the Secretary last year. Following the organization of the N. A. R. D., you perhaps will remember the State Association issued a circular letter, setting forth the workings and benefits of the National Association, and asking a subscription of \$1 each. This was sent to every drug store in the State—about 1,500—and we got responses from just 86, I believe, on that call.

Mr. Prall—We have heard something like that before from Mr. Mann. Will some individuals pass it around the State? I will pass it around in Saginaw. Let us do that work as much as we can.

Secretary—If you can find somebody who will do the passing around, it can be done.

Mr. Parker—Would it not be well for some members here to explain the manner of representation? It might be well for the Secretary to explain how that is regulated.

Secretary: I supposed that was pretty generally understood. The representation granted by the N. A. R. D. is one delegate for every 100 or fractional part of a hundred members of any regularly organized retail drug association. If an association has but 5 members, it has the privilege of one delegate, or 105 members, privilege of two delegates.

Mr. Brown—It must be a regularly organized association?

Secretary—Any regularly organized body of retail druggists can send a delegate, and the delegates sent must be men actively engaged in the retail drug business. No other delegate is recognized by the N. A. R. D.

A. S. Parker, Detroit—I just want to add to what has already been said by Mr. Webber in his report. I had the pleasure to represent the State as one of its delegates at the meeting in Cincinnati last fall and I went down there with a feeling of anticipation of what the meeting was to be, and I was in no way disappointed. I have attended a great many conventions of different sorts. As you all know, Detroit is a great place for conventions—we have about one every day during three-fourths of a year, I think. I want to say that I never attended a convention that was so full of spirit, so full of earnestness, attention to business, the motive in sight all the time and everybody working to it, as in that convention at Cincinnati last fall. I think it would be a source of pride to every member of the Michigan State Pharmaceutical Association if they could have attended that meeting and seen the character of the men that were there as delegates, to have heard their remarks, and to have noted the deliberation of that body, and I want to urge that every man in Michigan—every druggist who can take the time to go to Detroit, to the meeting of the N. A. R. D., to do so. It will be worth the time of any one to arrange his matters and attend that meeting, if only for a day. It is provided with entertainment, a committee looking after the social side of it. The character of that body is such that Detroit druggists, with great difficulty, secured concession of a half a day and an evening for the purpose of entertainment. We were notified in advance that they wished no entertainment and would not permit it, but we demanded it and finally succeeded in gaining that concession, and I want to urge that every one who can, make it a point to attend that meeting.

President—Members of the Association, this trade question has now been placed before your body and our deliberations for years merely resulted in resolutions and criticisms. Now you have a business proposition before you on the same plan as we settled our legislative propositions. It means cash to do it with, and as the matter stands it is left entirely in the hands of the retail druggists to help themselves, and there is no other body in the world will do it. The only feasible manner is on the voluntary subscription fund. I do not think we can make our annual dues high enough to take charge of this matter, as I think we would lose a large number of members which we can ill afford to do at present, but I think if subscriptions were taken up on the plan of having representative druggists take hold in their localities, we ought to be able to raise a thousand or \$1,500. This is a matter of dollars and cents to us, and donations of from \$2 to \$10 throughout the State would not hurt, and I think we would have money back before the year. We want the views of every man in the room.

Mr. Brown—I want to say personally that I could well afford \$50 a year to a fund like this, if I could have full prices.

Mr. Prall—I want to say that I do not think that this is an isolated case—this of the druggists. So much is said about the druggists being the only trade that does not organize. The difficulties of organization seem to be just as prevalent in one branch as another. A gentleman came to Saginaw to organize a local board of the Mercantile Association of Michigan, as it was called, and he was to get \$3 each from the members. He first secured a gentleman in the city to act as president and I was secretary, and I was to call a meeting of the members when he had secured the names. He had 68 and will get, perhaps, 150. He gets \$3 apiece. That money all leaves the town and goes to Detroit to form a State fund. He had secured 300 members here in Grand Rapids. That man has been all this year and two others for the same organization, and he had organized 30 odd cities.

Mr. Webber—I move that every member attending this convention be considered a committee of one to solicit funds from the respective locality that he represents, and that in the event of there being more than one member from that locality in attendance, that the President of this Association designate as to who that committee-man shall be for the purpose of raising funds.

Motion supported.

Mr. Schumacher—I think we had better go a little carefully about it. I think we could raise a thousand dollars. I think we had better start right to-night and do it. I would ask the question, in case a thousand dollars were raised, what could we say about it to the druggists? Could we say that the National Association would send an organizer?



I think we could raise it if we go at it right. My idea was to so represent it to the druggists throughout the State and talk the matter over with them, and if there should be any more than that raised, whether that amount could be used to keep the Association up in good order. And I move that if any over the thousand dollars be secured, it be used for legislative purposes of the State Association—kept as a general fund. This as an amendment.

Mr. Webber—That is a very good suggestion. I accept Mr. Schumacher's amendment.

Mr. Prall: Of course, you understand we don't give more; all we are obligated to pay is \$115, but this is just a contribution pure and simple. That I look upon only as a means to an end. I think if we could get money enough into the National organization, they would furnish an organizer. You send to Saginaw for a reasonable amount for any reasonable purpose, and you get your money, because we have an organization. You can do that in any city where they are organized.

Mr. Schumacher—I did not mean in any way to interfere with that fund, but what you secure over that—use that in our Association for such matters as come up in our representative body.

Mr. Prall—We would be very glad to have it that way.

President—The motion made by Mr. Webber would tend to make every member of this Association present a committee in his locality for solicitation, and as I understand the amendment made by Mr. Schumacher, if the fund reach over a thousand dollars, the remainder be left with the Association for legislative purposes. If this is the understanding, I will place the motion before the Association.

Mr. Bower—I am a druggist from Petoskey. I have been wide awake, but as near as I understand the matter, you propose to send what money you can to the National Association with the hope that we will have an organizer, but I don't see any hope to give my brother that the National Association will send an organizer. Raise your dues and get a local organizer to do this business. We are a pretty busy set of people up there just now. Just at this particular time of the year we have another duty to perform. The three other druggists are doing their share of it now and I am going back to help. We are loyal to the interests of the Association, and we are all good intelligent fellows up there, and if you will send an organizer up there I will undertake to say that you will get every man in the city. We won't squirm at \$2 a year. I believe I can speak for every druggist in Petoskey. What am I to say to my brother druggists when I go back there? What is this money for?

Mr. Seeley—I think there is a good deal of truth in what our brother from Petoskey has said—that we should have some assurance from the National Association that we should get some return from our contribution. Otherwise we had better keep the money in our own hands. I believe, with Mr. Prall and others, that if we can, we should work through the National Association. With the influence of the National Association behind this movement, it will be a great deal better than to undertake it alone, but we certainly want some assurance from the National Association that they will place an organizer in the State of Michigan and keep him working. Otherwise we had better hire our own organizer, and know we are getting the benefit of our money. They may see fit to put our contribution in the general treasury, to create a fund for organization. They may get \$5,000 into a fund for organization and spread it over the country, and how much would come to us? I am heartily in sympathy with all the support we could give the National Association, but I would put a string to that thousand dollars and say if we turn that in to the National Association, we must be assured that we will have an organizer placed in Michigan. Then we can go before the druggists of Michigan and say we are to have the influence and support of the National Association and would be benefited by their experience.

Mr. Perry—Make the proposition conditional that we give them that thousand dollars, providing they would see fit to do some work.

Mr. Seeley—I offer an amendment to the motion that this thousand dollars be turned over to the National Association with the proviso that the money be expended in organizing in the State of Michigan. Then the person soliciting subscriptions can say we are going to put this money through the National Association, if they will do as we wish, otherwise we will do it ourselves.

Mr. Parker—I support Mr. Seeley's amendment.

Mr. Webber—This motion does not cover quite enough territory. We are leaving out a large part of Michigan. There is a large part of Michigan that is not represented in this Association.

Mr. Prall—Provided for by Mr. Schumacher—that the Secretary send a circular letter.

Amendment accepted.

Mr. Webber—(Motion and amendments.) I move that every person attending this convention be a committee to solicit funds for the National Association to the amount of one thousand dollars, or over, the same to be turned in to the treasury of this Association with the understanding that one thousand dollars is to be turned over to the National Association upon their guaranty to us that they will furnish us an

organizer for the purpose of organizing county and local associations throughout the State, the balance, whatever it may be, over a thousand dollars to be turned over to the Treasurer of the Michigan State Pharmaceutical Association for the purpose of defraying the expenses of the legislative committee. In other parts of the State where not represented at this meeting, that the President and Secretary appoint a committee to solicit funds from that locality.

Motion carried.

President—Next in order will be the report of the Legislative Committee.

Mr. Webber, Cadillac, Chairman—Your Legislative Committee beg leave to offer the following report: We had one meeting at Lansing during the past year. At that meeting the four members of the State Board of Pharmacy met with us and held a joint meeting. The matter discussed was the revision of the present pharmacy bill. We took what was called the Milliken bill and made some changes, or amendments to that, and we have that here to present to you for your consideration. It would seem to me advisable, in order to save time, that instead of reading this bill through, we would commence and read section by section and dispose of it as we come to it so as not to take half an hour to read this through. If this is agreeable, I will read it section by section as we go along.

President—Would it be necessary to read the first sections that are not changed?

Mr. Webber—I have to say, Mr. President, that I have it mapped out here to read only those sections that will be changed. The Milliken bill was a bill that was introduced at the last session of the Legislature by your Legislative Committee, and the main feature of that bill was for the purpose of doing something to correct the liquor question. That bill passed the Senate and we have every reason that it would have passed the House, if we had got it there in time, but as a matter of fact, it died on the calendar.

The second section read as amended and approved.

Third section read as amended and approved.

Fifth section read as amended and approved.

Sixth section read as amended and approved.

Ninth section read as amended and approved.

Tenth section read as amended and approved.

Eleventh section read as amended and approved.

Prof. Stevens—Move that the Legislative Committee frame a clause covering expulsion of druggists who drink to excess, from business, and report to-morrow.

Supported.

Section 11a read and approved.

Secretary—Mr. President, I move that we accept the report of the Legislative Committee, the same to be taken up at the session to-morrow morning and read entirely that we may know just exactly what the complete bill as amended will be.

Motion carried.

President—Next in order will be general business.

Mr. Webber—Mr. President, I desire to call up that resolution of mine before we adjourn, relative to the endorsement of the N. A. R. D. I think it has practically been conceded that we are in sympathy with them, yet some action should be taken.

Resolution read by Secretary.

Mr. Brown—Move that the resolution be accepted and adopted.

Motion carried.

Mr. Brown—Before we adjourn, I move that a committee of five be appointed by the President as a nominating committee to nominate officers for the ensuing year.

Motion carried.

Committee appointed as follows: F. W. R. Perry, of Detroit; A. H. Webber, of Cadillac; E. F. Phillips, of Armada; D. E. Prall, of Saginaw; A. B. Stevens, of Ann Arbor.

Mr. Maun—Mr. President, I move that we adopt the amendment to the by-laws increasing the dues from \$1 to \$2 per year.

Motion carried unanimously.

Meeting adjourned to 8:30 a. m., Aug. 16, 1900.

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### THIRD SESSION.

Aug. 15, 1900, 9:15 a. m.

Meeting called to order by the President.

President—The first thing on the program this morning is the report of Committee on Pharmacy, and queries.

Prof. Prescott—Mr. President, I will present a subject which I hope to have some discussion upon—the subject of antidotes for acute poisoning with morphine.

## ANTIDOTES IN CASES OF MORPHINE POISONING.

By Albert B. Prescott.

In order to understand the use of antidotes it is necessary to have respect for the symptoms and the period in which these occur. In usual cases the symptoms appear in from twenty to forty minutes after the poison is taken. All conditions which favor rapid absorption bring about earlier effect. With this poison as with most others, there is a wide deviation of the symptoms, due to the individuality of the patient, his condition at the time, and the quantity of the poison taken. When the quantity is very much larger than just a fatal dose, the symptoms throughout bear the character of the comatose period. When the quantity is a barely poisonous one, the symptoms of the stage of exaltation and increased heart action are prolonged. The regular or usual course of symptoms runs about as follows: There is first a sense of exhilaration of the mind and comfort of the body, the pulse being both quickened and strengthened. Then dizziness and heaviness occur with nausea and languor, and ere long drowsiness comes on. The pulse is first reduced in frequency, afterwards reduced in force. Vomiting is a frequent, not universal result, but when it is delayed it seldom secures a full evacuation of the stomach. The desire to sleep steadily increases and returns from time to time after being overcome. There is a gradual loss of muscular power and lessened sensibility of the surface. Contraction of the pupils of the eyes is a characteristic symptom, and is quite constant, not invariable, beginning after the period of excitement. The sensitiveness of the conjunctiva is diminished, and the pupils fail to respond to a strong light. The one symptom to be most regarded is that of the respiration. The respirations gradually decrease in frequency, in some cases becoming reduced to three or four in a minute. The breathing is then stertorous and sometimes the respirations are short. In some cases after twenty or thirty respirations there is a pause, appearing periodically, sometimes reaching to half a minute. As the breathing begins after the pause it is at first quite rapid. In some cases, however, the rate of the respiration is gradually reduced from first to last. It should be understood that the respiration gives an index not only of the course of the poison, but also of the benefit of the antidote, and the prospect of recovery. As the respiration falls, the loss of its effect in the blood becomes obvious, the face grows blue, cyanotic as it is termed by medical men, the extremities get cold, and the general temperature is lower. In this stage the system suffers under two poisons, the morphine at the nerve centers and the excretory carbon dioxide of suffocation. The surface is apt to be moist. Retention of urine often occurs. At the last, when the pulse becomes very slow and weak, the pupils sometimes dilate. Convulsions are infrequent with adults, less infrequent with children. When the vomiting is excessive it is sometimes accompanied with diarrhoea. Generally all the secretions are checked except those of the skin.

When the poison is taken in repeated portions the earlier and later stages fail to be distinct, and the prospect of recovery depends upon the rate of elimination of the poison compared with the frequency and quantity of the dose.

Fatal acute cases show a duration of symptoms of from six to twelve hours. Cases are recorded of the occurrence of death as early as forty-five minutes after the poison is taken, and as late as four days.

Fatal quantity.—It is fair to say that two grains of morphine sulphate is such a poisonous quantity as to endanger the life of an adult of ordinary susceptibility. It is well known that children are relatively more sensitive to opium poisoning than to the action of most other narcotics. Adults differ from each other according to the resistance of the respiratory system, respiration being nature's means of recovery. It is stated by some authorities in toxicology that the average fatal quantity, for adults, is from three to six grains of morphine.

- But in fact any amount of morphine which is above the just limit of a medicinal dose, whether liable to be fatal or not, is a poisonous quantity, or borders upon the same. As to what is the largest allowable medicinal dose, the physician will be governed in part by the nature of the disease or injury he is contending against. The maximum of regular medicinal doses, that is, the largest dose authorized for people at large, those of average susceptibility, has been fixed by the Pharmacopoeias of several countries. The German, British, Austrian and Swiss Pharmacopoeias give one-half grain of morphine or its salts in a single dose, as the limit for adults. The maximum quantity during twenty-four hours is given at 1.5 grains by the Pharmacopoeias of Germany and Switzerland; at 1.9 grains by the Pharmacopoeia of Austria. The German Pharmacopoeia of 1895 gives 2.3 grains of opium as the maximum single dose.

The chief resources of treatment are the following: To remove the poison from the stomach. To arouse the respiration. The permanent treatment. Atropine administration as a respiratory stimulant and physiological antidote under the discretion of a physician. Strychnine, strong coffee or tea, and other agents acting as stimuli to the respiration and circulation.

To remove the poison from the stomach is the first requisite. Generally a simple siphon-tube, such as is used for the stomach, is the best agent for mechanical removal of the contents. If possible, the stomach should be washed out with an abundance of warm water applied two or three times. This should be done even if the poison has been taken in the hypodermic way, because of the considerable discharge of morphine into the stomach from the blood. For the same reason it is well to repeat the washing out of the stomach from time to time. And it is desirable to test the discharges and washings of the stomach for morphine, to ascertain when the poison ceases to appear in that organ. And in cases when abundant vomiting is obtained copious draughts of warm water should follow. Emetics are employed and these must be resorted to whenever the opium has been taken in mass, such as might fail to be removed by the tube. Ground mustard in teaspoonful doses, or sulphate of zinc in doses of twenty to thirty grains, is suitable. For hypodermic use apomorphine in doses of one-tenth of a grain is sometimes employed. Under this head may be given the use of agents for the precipitation of morphine or for its absorption into porous matters resisting solution. Tea, also tannic acid, have been recommended as precipitants, but really no final dependence can be placed upon them. No permanent precipitation of the alkaloid can be made in the stomach. A more promising measure is the administration of finely powdered charcoal suspended in water. Given abundantly this serves well to retain the alkaloid for a time and delay its absorption into the circulation. The powdered charcoal can be given the first thing, after which methods of evacuation of the

stomach are to be pushed as actively as though the absorbent had not been given. In the period of recovery from morphine poisoning a saline laxative or enema should be given.

To arouse the respiration. The stimulation of respiratory movements, and of the muscular system generally, is the main dependence. So long as the patient can respond to admonition he should be constantly urged to make effort in breathing. The stimulation of cold water applied to the face and back of the neck from time to time, and the inhalation of ammonia, may be employed. The patient is kept walking between two assistants. When other efforts fail, artificial respiration, about eighteen times a minute, should be resorted to. As already remarked, the rate of respiration serves to increase the effect of remedial measures. The state of the pulse is of comparatively lower value as a guide. The respiratory function is nature's resource for the conversion of morphine into inert oxidation products. The inhalation of oxygen as a means of oxidation in the blood, it is said, has not so far proved efficacious.

Treatment by permanganate of potassium was introduced to the medical profession by Dr. William Moore, of New York, in 1894-96. His articles appear in vol. 45 of the *Medical Record* and in the *British Medical Journal* for 1895. An article by A. P. Luff reporting on this subject appeared in the *British Medical Journal* for 1896, page 1193. Dr. H. C. Wood, in 1894, discussed this treatment in the *University Medical Magazine*, vol. 6, page 747. An article by L. Sharp, in 1895, appeared in the *Therapeutical Gazette*, page 561, and again page 732.

The administration of permanganate by the mouth seems to be well supported upon good testimony. The hypodermic administration of the agent, though recommended by Dr. Moore, has not met with general approval. When the permanganate is given by the mouth it is advised to use it in doses about one grain larger than the quantity of morphine taken, or that supposed to be in the stomach. The permanganate is to be dissolved in thirty or forty parts of water. Ten grains of it are dissolved in a half tumbler full of water and this is administered in portions, at discretion, to supply the quantities just indicated. During the recovery of the patient it is advised by Dr. Moore that a very dilute solution, such as one grain to a tumbler full of water, be given by the mouth, to act upon the small amount of morphine still being discharged into the stomach. The numerous cases of recovery under the permanganate treatment reported by Dr. Moore and various other physicians certify to a remarkable efficacy in this agent. The rapidity of chemical action of permanganate of potassium upon morphine can be verified by any one who will take the trouble to add the alkaloid to a dilute solution of the permanganate. The rapid extinction of the chamellion red color of the solution marks the promptness of morphine oxidation. The first product of this oxidation is well known to be oxy-dimorphine. How much farther the oxidation is carried by this agent under the conditions which can obtain in the stomach cannot here be declared. When the agent is introduced directly into the blood it must be considered to act physiologically rather than by direct chemical effect. Considered as an antidote, so far as it acts in the stomach, it is certainly to be classed as a chemical agent. It is an antidote that may, when necessary, be applied by the pharmacist as safely as any of the antidotes to poison. It is an agent not dangerous in its effects when some excess of it is administered.

In the statement made above that the hypodermic use of this antidote has not met with general approval, I do not desire to discourage inquiry into this method of administration. The recorded cases of remarkable recovery from opium poisoning when the permanganate has been used by direct introduction into the blood, constitute very strong testimony in favor of this treatment. For example, Dr. C. H. Callendar reported in 1894, in the *New York Medical Record*, vol. 46, page 345, a case of a child of seven years not in good health who had taken two fluidrachms of laudanum. The respirations were eight times per minute, the pulse forty-six per minute and unsteady, the face pallid and shrunken, the skin cold and covered with sweat. Under treatment with hypodermic injections of the permanganate recovery was obtained. In another case given by Dr. T. J. M. Lindsay, in 1895, in the *New York Medical Record*, vol. 48, page 858, a woman of middle age had taken nearly a teaspoonful of morphine and was in a comatose state. Under the hypodermic treatment with permanganate there was recovery.

The administration of atropine. I have already indexed this remedy as one to be applied by the direction of a physician. It is not, however, any more out of the question in the toxicology of the pharmacist than many other antidotes which find a place upon the poison labels applied by pharmacists. Atropine serves as a respiratory stimulant, in this case, and almost without doubt it serves in some part as a physiological antidote. It would be a mistake to infer from some of the cases of marvelous recovery by help of this agent, that its physiological effect is one directly and fully to neutralize the effect of the morphine. This would certainly be a dangerous dependence upon atropine in the treatment of opium poisoning. A remarkable case of recovery under the hypodermic use of atropine was reported by Dr. C. H. Lewis, in 1879, *Detroit Lancet*, vol. 3, page 193. The eminent pharmacologist, Kobert, in his work on poisons, in 1893 (page 557), says that he himself has used atropine in treatment of opium poisoning for fourteen years, following von Graefe and others. He uses hypodermics of one-sixtieth of a grain every thirty minutes till the pulse improves and the pupils enlarge. Dr. H. C. Wood, in an article published in 1893, gave favorable opinion of the use of atropine as a respiratory stimulant, combining its effect with that of strychnine. In the case of Dr. Lewis, already cited, a woman had taken by mistake about a half tablespoonful of morphine sulphate. An hour later a moderate emesis had just been obtained and then the stomach was well washed out. Atropine sulphate was given hypodermically, at first one-twenty-fourth of a grain, then at intervals of fifteen minutes one-sixteenth of a grain, and later in portions of one-eighth of a grain. Coffee fluid extract was given hypodermically and frictions were applied, also the faradic current. After the fourth injection of atropine the pupil had began to dilate and in an hour had covered about one-half the iris. "They remained at this degree of dilatation, and utterly unresponsive to light, with conjunctiva insensible to touch." During the dilation of the pupil the respiration continued to grow more slow and shallow, the pulse more frequent and feeble, the surface more cold and pale, with increasing torpor. Still the administration of the atropine was heroically continued six hours, and in all one and one-sixteenth grains were given subcutaneously. The patient began to rally five hours after the first of the atropine was given. The period of profound coma was fourteen hours. The recovery was complete. In the administration



of this remedy the indications of the respiration are a better guide than the effect upon the pupil of the eye.

Strychnine, strong coffee or tea, and other agents acting as stimuli to the respiration and circulation. Among the remedies of this class, hot foot-baths, mustard applications, and frictions are very serviceable. Strong coffee has already been mentioned and hypodermics of caffeine are more effective. If strychnine is to be given, hypodermic doses of one-thirtieth of a grain are advised (H. C. Wood). Cocaine hydrochlorate has been recommended in hypodermic doses of one-fourth to one-half of a grain.

An interesting hospital case in treatment of opium poisoning was reported by L. P. Hamburger in 1894, in Johns Hopkins Hospital Bulletin, V. 42, 94. The interest of this case lies in the analysis of the washings of the stomach, together with analyses of the urine. A Chinaman had taken ten grains of opium. Seven and a half hours after the poison was taken the stomach was very thoroughly washed out. The washings responded clearly to chemical tests, both for morphine and for meconic acid. At the same time the urine drawn away by a catheter gave tests for morphine. Within a period of from ten to thirteen and a half hours after the poison was taken, that is, from three to six and a half hours after the stomach was first thoroughly washed out, portions of washings of the stomach were taken at intervals and tested for morphine and for meconic acid. These portions showed the presence of morphine, but failed to show the presence of meconic acid, during this period of three and a half hours. Granting that the tests were sufficiently delicate for meconic acid, as well as for morphine, and this the writer of the report does not seem to doubt, the results show that morphine must have been discharged from the blood into the stomach during the period mentioned. This is only a verification of the general statement of pharmacologists that during the action of morphine as a poison it is being discharged at some rate from the blood into the stomach and intestines. It is in view of this that repeated evacuation of the stomach, washing it out by help of a stomach tube or otherwise, is a remedial measure that should not be neglected. For the same reason Dr. Moore advised the administration of small doses of permanganate by the mouth during the later period of opium poisoning.

**The Deposition of Morphine in the Body.**—The authorities state that in acute poisoning morphine is eliminated largely through the mucous membrane of the stomach and smaller intestines, either without change or changed but slightly. The urine receives but small quantities and these are variable. Dr. T. G. Wormley, in 1891 (*Chem. News*, 62, 65), reported upon an examination of the urine of six persons who had taken morphine. He found it present in all of the cases, but in four of them indication of only a trace was obtained, such a trace as earlier methods might have failed to reveal. In the remaining two cases considerable quantities of the alkaloid were found in the urine. Without doubt morphine is mainly gotten rid of by oxidation in the blood, and the alkalinity of the blood promotes the change. The products of the oxidation are not well known. Toxicologists are inclined to make postmortem tests for oxy-dimorphine. Morphine itself has been many times recovered from the blood of animals poisoned with it. Morphine has been found in the liver, in the gall bladder, and in the kidneys. It has been found in the brain.

If the diagnosis of morphine poisoning be in doubt, the urine ought to be examined, if it can be done in time. But the probability of finding it in the washings of the stomach is much greater.

In investigation of the deposition of poisons in the body, a reported case of the chemist Dragendorff is of interest. A man twenty-four years of age, accustomed to taking morphine constantly, died of strychnine poison, ipecacuanha being used in treatment. No alkaloid was found in the stomach. In the small intestine no morphine or emetine was found, and but very little strychnine. In the large intestine traces of strychnine, but neither morphine nor emetine. In one hundred and thirty grammes of blood from the abdominal cavity a trace of morphine and undoubted traces of strychnine. In the liver traces of strychnine. In the gall traces of both morphine and strychnine. In the brain traces of strychnine. In the second vomit no morphine, distinct trace of strychnine, much emetine. In the third vomit, morphine uncertain, distinct reactions for strychnine and for emetine. In the fourth and fifth vomits, distinct traces of morphine, neither strychnine nor emetine.

Prof. Prescott continued as follows:

The action of oxidizing agents outside of the body is another matter, but it might be worth while to show the effect of morphine in dis-coloring this chamellion red permanganate of potassium by adding morphine to it. I will fill these two tubes from some solution of permanganate, and into one of them I will drop crystals of sulphate of morphine undissolved. Of course it will dissolve very quickly—the time for it to dissolve will not retard the effect very much. I will pass them about—I will hold them up to the light instead—that is better.

There is one other oxidizing agent I want to just show, and then I will relieve you, and that is the oxidizing agent, iodic acid. Now, in this tube of distilled water. I drop some of this same morphine sulphate, and shake it up to dissolve. We have here a somewhat diluted solution of morphine sulphate. To that I will add a solution of iodic acid, an oxy-acid of iodine. You see a reddish brown color. Now I want to tell you that that color consists of two very different things. It consists in part of the reduced iodine—with iodine color, and until lately it was supposed that the color was wholly due to iodine. Now, I will add some chloroform to that solution and shake it up. The chloroform, you know, will take up the iodine and give the cherry red color of the chloroform solution of iodine in the layer below. Now, you may take my word for it, if you please, for I have tried it, if you shake that solution with ten portions of chloroform there will still remain a mahogany brown color which is not iodine at all, but a color product of the morphine itself.

President—The members have heard this very able paper on morphine poisoning and the physiological effects of antidotes, etc., and we would like to hear from some of the members, if they have anything to offer in the way of experience in morphine poisoning in their practice.

F. A. Thompson, of Detroit—It is our pleasure to have with us this morning, Prof. Sayer, of the Kansas University. I should very much like to hear from him, and am sure we all would enjoy it.

Prof. Sayer—Mr. President and Members of the Michigan State Pharmaceutical Association, and I might say, Brethren: I suppose these gentlemen understand that there is a kind of free masonry feeling among pharmacists all over the world. A few years ago I had the pleasure of attending a meeting of this Association and I was received and felt just as I do to-day—a feeling of brotherhood which existed among pharmaceutical practitioners. I suppose I want to behave myself properly and represent, as I would have been asked to do had the Kansas Pharmaceutical Association known I was to be present, represent that organization, I suppose I should do so best by taking up as little of your time as possible and confining what remarks I may make here to the profitable paper which you have just heard read. I might substitute for any speech that I might make, and respond to the invitation to make some remarks regarding the question of morphine poisoning, as it happens to be a subject that I am very much interested in. A case of morphine poisoning came under my own observation some time ago. A young lady about 21 years of age had taken—about 12 o'clock—8 or 10 grains of morphine, supposing she had taken quinine. She had not been well and her physician recommended that she should take quinine, two grains every hour at first, and then every two hours. She commenced about 9 o'clock in the morning and at the time when my attention was called to her, she had taken about 8 or 10 grains—about half-past 12 o'clock at noon. I was at home. Door bell rang and person said that certain young lady had taken morphine and I should go to her rescue. I immediately mixed up the solution for permanganate, hurried over—she was a neighbor—and gave her as large a dose as I dared give and telephoned a physician. I need not go into the details other than to say that the evacuation of the stomach was the first thing after the physician was called, but no coffee or other antidote was administered until after the effect of permanganate had taken place, and then was given. To make a long story short, by 11 o'clock that night, we stayed together until 11 o'clock that night, we felt as if it was safe to allow the person to go to sleep. We both left the house at 11 o'clock and then the patient was sleeping; the doctor gave directions not to disturb her until morning. The next morning I called at the house and she was considerably better and in time recovered entirely. The doctor thought it was entirely due to permanganate.

I am very much obliged to you for the privilege of the floor and glad that I shall be with you the rest of the day.

President—We would like to hear from some of the members on this subject, if there is anything that can be offered. It is a subject of great interest and importance to our profession and ought to be given attention, if anything can be learned.

Mr. Parker—I would like to ask the limit of time at which permanganate can be given after the taking of morphine. After it has been

pretty thoroughly absorbed—taken into the circulation—say 3 or 4 hours, can the permanganate operate successfully?

Prof. Prescott—It is claimed that it is not beyond the reach of permanganate after absorption into the blood. Probably all would not agree on that, however. So long as there is or can be any in the stomach and intestines it is not too late to give permanganate, and as it is a harmless agent, I do not know why we should not avail ourselves of a possibility that it may serve.

Mr. Parker—Is it always administered orally?

Prof. Prescott—Dr. Moore gave it by the mouth and hypodermically.

Mr. Seeley—Would it not be better to give it hypodermically than by the mouth?

Prof. Prescott—Perhaps in both ways. I have confined myself to treatment that would be more likely to be adopted by pharmacists.

Mr. Burke—Would not the amount be given large not being very soluble?

Prof. Prescott—It is pretty soluble. I think a merely saturated solution might be introduced hypodermically, probably be better to have it diluted.

Mr. Seeley: You spoke of the use of charcoal. Would you give the charcoal before or after the washing out of the stomach?

Prof. Prescott—Yes, at once; unless there is apt to be an evacuation at once. Charcoal I think is the best absorbent,—ground charcoal is more effective, but powdered charcoal is generally handled at drug stores—and more finely powdered than could be done temporarily.

F. D. Smith—I would like to ask the doctor about the amount of potash he would use hypodermically. He stated what he would use by the mouth, but not what he would use hypodermically.

Prof. Prescott—I would rather not say. I remember having difficulty in finding full statement of cases reported by Dr. Moore on that point. I should leave it to ordinary discretion. I have never known or heard of any injury from the application of permanganate hypodermically.

Mr. Seeley—How many grains can be given safely by the mouth?

Prof. Prescott—I have never seen any statement as to the limit. Dr. Moore said one or two, three grains more than the quantity of opium taken, and refers again to making a solution of ten grains of permanganate sufficiently diluted and giving it until results are received.

Mr. Seeley. Suppose a person took 20, 25 or 30 grains of morphine. Should a greater amount of permanganate be given?

Prof. Prescott—Hardly, because that would not be the quantity in the stomach. The excess of morphine ought to be removed by evacuation of the stomach.

Mr. Parker—Does permanganate have a similar action on other alkaloids—strychnine?

Prof. Prescott—There is no other alkaloid that oxidizes with anything like the readiness that strychnine does.

F. A. Thompson, Detroit—I would like to ask Dr. Sayers how much permanganate was administered in the case he cited.

Prof. Sayers—In the case of which I have spoken, my clerk hastily made a solution, strong solution of permanganate potassium—about half a pint of the solution, and he had put into that half pint of water solution—I imagine, 10 grains of permanganate potassium, but he himself did not stop to weigh it, but his point was to get to me as rapidly as possible a strong solution of permanganate of potassium, and I administered that first in table-spoonful doses every 15 minutes until the doctor arrived.

The thought has occurred to me that this whole subject of the antidotes for poison is a very important one for the pharmacist, and it does seem to me that this paper just read indicated what should be done by pharmacists generally in looking up the matter of antidotes and the poisons, and get to the pharmacist exact data as to the antidote, the quantities to be given, and the details. It seems to me that if we were to compile statistics upon this subject and publish them in connection with the National Pharmacopoeia, it would be of very great advantage and it would be a very great addition to that important volume, so that I think here is a work for the pharmacist.

President—In regard to the use of permanganate—as far as it has come under my observation, it seems to me that the preparation itself is a reasonably safe article to administer. I recollect we have made capsules containing as much as three grains of permanganate mixed with creoline as a dilutant, and evidently the mixture was taken without any disturbance, but if the preparation is to be used in cases of antidote, I think still stronger doses are perfectly safe, particularly when they are reasonably well diluted. The most the preparation can do in case it should act as an irritant, would be to cause an evacuation of the stomach.

Mr. Prall—I want to go back while we are on this pharmaceutical question. A point came up in my store recently. A neighbor found fleas on a favorite dog. I gave him oil of cedar. A few days after I

saw him—and the dog which had been white but was decidedly yellow—and he said that three veterinary surgeons had told him if the dog died, I ought to pay for it,—oil of cedar should be marked poison. He thinks the dog would have died had he not used various other things.

President—If there are no further remarks on these topics, we will listen to the next paper of the Committee on Pharmacy and Query.

#### FLUID EXTRACT OF SQUILL.

BY A. B. STEVENS, Ph. C.

When fluid extract of squill is manufactured in strict accordance with the requirements of the pharmacopoeia, the product separates into two layers, a thin fluid, strongly alcoholic and of a decided bitter taste. The lower layer is thick, mucilaginous, less bitter taste, and containing but little alcohol. By request of the writer, Dr. George B. Wallace submitted each layer, separately, to a careful pharmacological examination and reported that the upper layer was four times as active as the lower layer, and that when 95 per cent alcohol was added to the lower layer a white substance, forming the bulk of the layer, is thrown out of solution, also that it is soluble in water and pharmacologically inactive. Doubtless the activity of the lower layer is due to the carrying down of a small quantity of the active principle by the mucilaginous substance during separation.

The Pharmacopoeia of 1880 directed to use alcohol as a menstruum. The Pharmacopoeia of 1890 changed the menstruum to 750 Cc. of alcohol and 250 Cc. of water. With a view to ascertaining the best menstruum to be used Mr. L. F. Barlow was directed to prepare fluid extracts of squill with 80, 85 and 90 per cent of official alcohol, but in each case there occurred a separation into two layers, the lower mucilaginous layer decreasing in volume with the increase of the strength of the alcohol. The best results were obtained with full strength official alcohol.

While there seems to be some doubt as to the exact composition of the constituents of squill, it is quite certain that all of the active principles are soluble in alcohol, and that the gum and sugar which form the mucilaginous part are soluble in water but insoluble in alcohol.

Chemical Laboratory, University of Michigan.

Prof. Stevens—I have a resolution here, but I want it distinctly understood that I wanted rather to get the expression of the Association. As a member of that committee, I do not in any way wish to influence your action at the present time. I simply have worded this so that I think it will cover the points, and you may modify it to suit yourselves. I have so worded it, I think, that it will cover the principal points in this paper.

Resolved, That a minimum standard be required for all drugs and preparations where a simple, practicable and reliable method of assay can be given, but that the standard for preparations shall be lower than that required for the drug in order to allow for loss during manufacture.

Let us look over that just a moment. You see, in the first part there, it covers whether it shall be a maximum or minimum. I put in here for a minimum standard of strength. If you wish to change that to maximum or average standard—that lies with you—whether this standard shall cover drugs only or drugs and preparations or preparations only. It is easily modified by striking out any one of those words. I have read a report that was sent out to the committee where the chairman of the committee has given a list of the articles that it was thought best, in his estimation—not in the estimation of the members of the committee—in his estimation he thought best to have standardized list, and then he gives a secondary list which he thinks ought to be worked up. I think an expression as to the number that you think would be advisable to put in there would be in order. A number are already standardized by the pharmacopoeia.

President—The subject is now open to discussion, and I hope that the members will take an active part in this. It is a matter of revision and a matter of importance. I hope that the members will give a good, thorough expression of their opinion on the matter. Be as brief as possible, as our time is limited.

Mr. Parker—I can only speak for myself. I would, personally, favor a minimum limit. I don't believe I go so far, perhaps, as cherry bark, but I would include a list which comprised the more active remedies, such as belladonna and that class of remedies. I believe it is a step in the right direction, even if it does not result in all we might hope for.

Mr. Thompson—There is one drug mentioned—*ippecac*—and speaking about drugs and preparations. It is a well-known fact, in making preparations of *ippecac*, great allowance would be made for loss in that case. I think we should go slowly on the number it should be applied to and not rush in. It loses effect. We have gone slowly with the others and got prices that are satisfactory and reliable and recognized by the courts, and I think that every step taken towards increasing that list should be one that could be maintained in the courts and sworn to as correct. I should prefer the minimum standard.

Prof. Prescott—You observe this resolution by Prof. Stevens limits to those that can be distinctly, readily and satisfactorily assayed. At first thought, I wondered why he did not limit the number in proportion to the potency of the article; but on reflection I remember that we have now a very large number of articles of very low potency, which, however, in the pharmacopoeia are not standards by assay. We do not think of them as such.

Mr. Parker—I did not understand Prof. Stevens' resolution, Dr. Prescott, to include that class of preparations.

Prof. Stevens—Dr. Prescott was all right. He simply brought this up as to what is already in the pharmacopoeia. This has to do with the galenical preparations. My point here was to bring in those organic drugs which could be easily assayed by the pharmacist. There is one point to be borne in mind here—what effect is it going to have upon the pharmacist in the way of manufacture? I think Dr. Lyons alludes to that in his paper—whether it will cause pharmacists to manufacture less and work through the manufacturing houses or not. I hope you will say something in regard to whether or not this shall be extended to preparations as well as drugs.

Mr. Parker—If this Association goes on record, it should cover the whole subject.

President—I have given this matter some thought in regard to standardizing preparations for the practical use of the pharmacist. As we all understand, the U. S. Pharmacopoeia is the guide—standard guide—for our recognized preparations, and in forming this standard we must always have in view that it is a standard for the pharmacist in his application to the practical work. It is not a standard to be put in such a shape that it is merely to be carried out by individuals that are thoroughly educated in certain scientific directions—that are experts. It has got to be in such shape that it is available to the average college trained pharmacist, and it can be so that even the pharmacist that has his knowledge and training only by experience can carry out such simple process of standardizing reasonably close to make the preparations safe and keep them within standard limits. I don't think it would be to any advantage to the pharmaceutical profession to have the crude material standardized because it will not hold as standard. The standardizing of some drugs would only make them more expensive, and the standardization would be of no account. The galenical preparations themselves are the ones which are most used; they ought to be standardized. Opium would, of course, be standardized, and is already standardized in our pharmacopoeia, but a large majority of drugs are put in the shape of preparations, syrups or extracts, and I think if we have that line of preparations standardized, we would cover the entire field, and it would be a step in the right direction. In connection with this, I think we ought to be very careful in selecting the articles for which we wish a standard, and limit them as much as possible, at least for a starter. Take preparations like aconite, belladonna, nux vomica—such preparations whose activity is very great and also apt to cause disturbance if not properly prepared, and not kept to uniform standard—such preparations should be standardized, and there are processes by which a standard can be reasonably closely established by a pharmacist that has any faculty of manipulating such process. I cannot see the benefit of standardizing, for instance, cinchona preparations. They are not potent remedies, they are used



mostly as remedies for general tonics, and it cuts but very little figure with the treatment of a case whether there is a quarter per cent more or less alkaloid in the preparation, a difference which would be quite marked in aconite or nux vomica.

Mr. Parker—Don't you believe that cinchona bark should have an official strength between certain limits?

President—They ought to be regulated as to quality. That is standardization on the same plan as we standardize the preparation of low potency. I think we ought to keep our limitation of standard preparations within preparations of that character until that is well established, and as progress goes on, we get better methods of practical standardizing; of course the plan can be extended. I think this Association ought to put itself down on record for drawing the line, for the present, so as to make it practical and put it in position to protect the druggist against inconvenience and trouble by other forms of legislation that may come up, for instance, in connection with pure food laws and similar legislation.

Prof. Sayer, Kansas City—It seems to me we ought not to consider for a moment the question of the potency of the drug. It is a question of the practicability of the process. Now, if it were possible for me to suggest to the Revision Committee a process of standardizing taraxacum so that a physician can be furnished with a perfectly uniform and standard preparation of taraxacum. It seems to me that ought to be standardized. We have been passing through a revolutionary period which has been called the "shot gun" period, that is to say, we have been using remedies in that slipshod way. Now we are coming to the rifle period, where we have a direct application of a single drug to have a specific effect, and as we are approaching that period, it seems to me we should have our remedial agents standardized. It does not make any difference what kind of a drug it is. If we can say to the physician, here is a preparation that always has the same amount of active principal in it. It is a question of practicability for the retail druggist to standardize the drug—it does not make any difference what the drug is.

President—I fully appreciate the position and tendency of the movement, but I think that incorporating and standardizing to that extent would make up rather a longer list than the present condition of pharmacy is prepared to meet, and as I took up this question of standardization, I always had in mind that it was to put a uniformity upon the particular preparations that are very apt to cause disturbances and endanger life by being so varied in efficiency. I don't see the advantage, more than merely a matter of scientific and an absolutely

positive form of preparation, of standardizing gentian or any of those preparations which are not considered as what we term strictly physiological remedies.

Prof. Stevens—One thing I think we should bear in mind—that the main object of standardization is to furnish us a good quality of drug, and we want some way of furnishing the medical profession a good quality of drug when they ask for it, and so it may be necessary to extend the list further than at first sight we would think best.

President—Does not the pharmacopoeia require that jalap have certain qualities that it must come up to?

Prof. Stevens—It does. I was just thinking that some of the manufacturing houses are ten years in advance of the pharmacists. Do we want to have it go on in that way, or do we want to come out somewhere near the top?

Prof. Prescott—In regard to the organic drugs, the question as to whether standardization shall be limited by potency or by feasibility of assay is not so important a question as it might be, but I must say that the proposition of the resolution presented by Prof. Stevens to limit process of assay only according to definiteness and feasible practicability of assay is a pretty good one. An article like licorice may be, apparently, of very low potency, and we may say in a great majority of cases it does not make any difference to the patient whether it is stronger or weaker, or entirely destitute of strength, but should we admit that principle in the practice of pharmacy, we might as well confess to the world that the majority of the practice of pharmacy is a sham.

Mr. Burke—It seems to me that this resolution is right. I do not know that I would be in favor of carrying it further. If standardization is a good thing, and if it places effective remedies in the hands of the doctors, I think that everybody ought to advocate it, whether these tests can be applied by the retailer or whether they have to be applied by the manufacturer. The idea is to place a dependable remedy in the hands of the physician, and better results will come.

Mr. Parker—The spirit of that resolution, in so far as this Association is concerned, it seems to me, means just this—whether we shall go on record as favoring an advance or standing still. As Prof. Stevens has said, we have all recognized for years that the manufacturing houses are to-day far in advance of the pharmacists. They adopted standard methods long ago; they recognize the necessity of furnishing reliable remedies. I have perfect confidence in the committee to whom this work is intrusted, and I believe we shall make no mistake in

adopting this resolution, and I would therefore move the adoption of the resolution as offered by Prof. Stevens.

Motion carried.

President—At the meeting of last evening there were some lists placed on the tables here for the signatures of members for subscriptions to raise funds for organization in the state. If there are any members in the room that have not yet signed this subscription list and feel inclined to do so, we would like to have them step forward and put down their names and amounts.

President—We will now take up the report of the Committee on President's address.

E. F. Phillips, Armada, Chairman of committee:

Mr. President and members of the Michigan State Pharmaceutical Association:

Your committee, to whom was referred the President's address, would beg to submit the following report. They have carefully studied this valuable paper and find that it contains many useful suggestions which ought to bring forth discussion and upon which the Association should take action.

First, the matter of increasing the annual dues from one dollar to two dollars meets with the approval of your Committee, but as it has been brought up and acted upon at this session your Committee is "twenty minutes late."

Your Committee was somewhat divided on the question of requiring in the future all persons, desiring to become pharmacists, to be graduates of legitimate schools of Pharmacy. That subject was therefore left without action.

The views of the President on the standing of pharmacists in the army and navy were heartily endorsed, and the recommendation is made that the proper authorities be memorialized to place hospital stewards upon the rolls as pharmacists with the rank of lieutenants.

Respectfully submitted,

E. F. PHILLIPS,

J. W. SEELEY,

D. E. PRALL,

Committee.

President—You have all heard this report. What is your pleasure with it?

Prof. Prescott—I move that it be accepted by the Association.

Motion carried.

Mr. Parker—Mr. President, the address of the President of this Society for the past few years has been passed by with the report of the committee to whom referred. I think that is a rank injustice to the writer of the addresses, who has given a good deal of time and thought

to the more important things which are of interest to the pharmacists, and I think those recommendations should be taken up and discussed seriatim.

President—We will take up the matter of registration in pharmacy.

Mr. Schumacher—I might say in regard to that question, I sent out a circular throughout the state, and have met with some very favorable reports in regard to the question. I am satisfied that whilst I would not want to say that a person should be a graduate of a recognized college of pharmacy, he ought to have some experience. I think it is almost impossible to get your education unless you spend a number of years. I think it is necessary to have a college education, not simply a graduation, but practical experience. Some were inclined to think that it was an injustice to the poor boy, yet at the same time all admitted that it would be a good thing. They thought the standard of the board should be raised, but in my mind, if that were done, how much better off would the poor boy be? Wouldn't it be better for him to save his half dollars and try and get a college training? I am heartily in favor of it.

Mr. Parker—I think, Mr. President, the first thing we ought to do, before a condition of that sort should be brought about—which would be perhaps the millenium—would be to standardize the colleges of pharmacy.

Mr. Schumacher—The board has a rule in regard to what is called a recognized school of pharmacy—in regard to the number of hours of practical work and the number of hours of class work. We have had some little trouble with some of the colleges who thought we had no power to make such a discrimination, but we have had some experience in regard to our resolution, though it was not quite strong enough.

Secretary—Would it be constitutional to pass a law compelling any one to take a college course prior to going before the board for examination? It would not appear to me that such a law would be constitutional. Such a law would bar natural privileges. I simply state this question without giving it much of any thought. I don't believe that is so with the medical law. Must a man be a graduate of a college?

Mr. Schumacher—He must be a graduate.

Mr. Webber—I believe we are all agreed as to the desirability of making this change, but I do not believe it is possible to get such a bill as that through the legislature of Michigan. We are simply wasting our time at present. I don't think it can be done now.

Prof. Prescott—I am inclined to agree with Mr. Webber. I want to say just a word. As most of my fellow members know, I have

always urged dependence upon the examination by the state board and not dependence upon a diploma—and I believe that it is far better dependence. I would much rather have a good, uniform, fair, rigid examination, as we have in this state, without a graduation requirement, for the interests of pharmacy, than to have diploma required without examination, though there were a pretty strict censorship as to diplomas of what schools should be admitted. I have no doubt, watching the signs of the times in our own pursuit and in other skilled pursuits, not so say professions, in other skilled pursuits, I have no doubt the time is coming—and not very far hence—when either a diploma or a term in college will be required as a condition to taking examination of pharmacy in the several states. We know of the advance in the medical profession during the last fifteen or twenty years; we can see that. Now, it is no discredit to any physician, in any place, that he graduated in a medical college that had but two short terms of four or five months each, two terms at the most of six months each, while those same men now, who graduated from two college terms of four, five or six months each, are joining together and holding the standard right up to four years of nine months each, and urging for a fifth year added to that. That is the advance in the medical professions. It is no discredit to any practitioner of pharmacy that he never saw the inside of a school of pharmacy. It is no discredit to any fellow member of the profession that he has never had a college training, but we are living in a different age. We do not do things as we did 25 years ago, and the requirement of professional education—education in skilled pursuits—is coming on apace. I suppose when it is done, there ought to be five years notice given, but in the interest of advance there is really no hurry, and I do not regard that this is the verdict of our Legislative Committee—that we must wait before it is even introduced into the legislature. Other things are more important.

President—As there seems to be a wrong impression in regard to the views had in making those propositions, I will say it was my object to put this Association on record as favoring educational training as a foundation for a pharmacist. It was not the intention that we should go ahead and at once place this matter in our laws as a matter of fact, but in the event of the conditions that are developing in our pharmaceutical societies for standardizing drugs, and being able to make such manipulations, and in taking into consideration the fact that there is no training any more in that direction, I thought it was time for this Association to take up this matter as advocating that condition, which, of course, will take time. I do not expect that we will have it in the next three or four years, but in five or six years from now there might be quite a change, and make it a necessity, and the Association ought to be preparing itself to meet such conditions. The attention of the Association should be drawn to this point that when taking in young men for apprentices or clerks, with the intention of following up the business of pharmacy, to see to it at least that they

have a good high school education to start with. They will then seek the other education, if they have any other ambition.

Mr. Webber—Regarding that next resolution—I believe there is another—I would move that the Secretary be authorized to frame a suitable resolution and transmit to the proper authorities so far as it covers our militia and the U. S. Army and Navy service.

Motion carried.

President—This question of education has not been disposed of yet. What shall be done with it?

Mr. Schumacher—This idea of waiting—of course, there is no one thought it would take effect or that it would be introduced in this next session. I don't know why Michigan should stay back and wait for somebody else to go ahead and make the movement. I think I read in one of the journals that another State was agitating it strongly, and I think the Association ought to take some action in this matter.

J. S. Bennett, Lansing—I move that a special committee of three to take up the question of higher education for licensing any pharmacist to go before the Pharmacy Board, be appointed, and that committee to report at next meeting.

Motion carried.

President—We will have report from the Executive Committee.

Mr. Parker, Detroit—I do not know whether I am chairman of that committee or not. At all events, the committee compared the Secretary's report with that of the Treasurer, and they tallied, and the report, so far as I was able to ascertain, was correct.

There was but one meeting of the Executive Board during the year and that was held at Grand Rapids simply to consider the matter of arranging for this meeting. Further than that I think the Secretary and Executive Committee have no report to make.

President—You have all heard the report of the Executive Committee. What is the pleasure of the Association?

Mr. Webber—Move that it be accepted.

Motion carried.

President—Is the committee ready to report on the communication received from the Drug Clerks' Association?

Mr. Webber—It is. We simply recommend, Mr. President and gentlemen, that this Association could not consider that bill in its present form, and that the Legislative Committee would be willing to confer with a committee of the Drug Clerks' Association at any time that they might choose, to talk it over, and perhaps decide upon a bill that would be mutually agreed upon.

President—What is the wish of the Association upon this report?

Mr. Burke—I move that it be accepted.

Motion carried.

Mr. Parker—While we are on these pharmaceutical matters, may I just mention one thing? I would like an expression of opinion from this Association in regard to the recommendation of the Board of Pharmacy bearing upon the question of adding an examination in prescriptions. The Pharmacy Board are doing good work and the examination in the branches as they are given are, I think, satisfactory, but it is no guaranty to an employer that one who has passed the Board is a competent prescriptionist. An arrangement could be made whereby all applicants could be given an examination in prescription work. It is a very important subject, it seems to me, when a young man goes out bearing the permission of the board, practically saying he is competent, that it means fully what it says.

Prof. Stevens—I am very glad that this subject has been brought up. I am heartily in accord with what Mr. Parker has said in regard to the examination question. The question has gotten to be nowadays, what shall we give to students of pharmacy? Shall we give them a trial simply upon the pharmacopoeia? Do you want a student to go into your store who knows the pharmacopoeia by heart and knows almost nothing else? Do you want one who can give you a formula from his head and not be able to go ahead and make that prescription? I believe we have one of the best boards in the United States. The report as sent out from statistics collected by the Western Druggists, and reported in the American Pharmaceutical Association a number of years ago, places the Michigan board at the head of State boards. Now, a number of years ago I spoke to Mr. Perry, when he was on the board, and I strongly advocated then that they have one or two places in the State. I am very certain the University would gladly secure or make a place for them to give an examination at any time that they might select, if they would go there once or twice a year. We would arrange a place where they could do actual work for an examination. I believe that those who are engaged in teaching students pharmacy should be allowed to give time to something else besides simply having them recite from a pharmacopoeia. This is very important to you as retail druggists, and not simply to the Examining Board or to the students, or to the men who go before them. What we want is practical education, not stuffing their heads full of facts.

Mr. Prall—I would like to ask Prof. Stevens if the school in Ann Arbor does not have a school in pharmacy?

Mr. Stevens—It does. We ought to extend that kind of work and would gladly extend it as far as we can, but I dislike this drill upon

what we think is important. I would like to have this Association go on record as to what they think is necessary. What is the object of a State examination? I ask you if the object of a State examination is not to make safe dispensers? It is to protect the public and make safe men for dispensing, and that is what we want. We want men that can standardize these drugs. In order to do it, they have got to be drilled and have practical work. They have got to go to work and standardize those drugs in actual work. We want to make the work practical from the beginning. The practical man that can go into your store and compound a prescription—that is the kind of man we want to turn out.

Mr. Parker—Every man here who has conducted a drug store or is conducting one to-day will say, from experience, I will guarantee, that he has seen a number of instances where a prospective applicant was a student at some school before he went into the store. He cannot learn how to make a difficult pill or to put together a difficult mixture from a compound without practical experience. I firmly believe that there should be at Lansing, we will say, and at some point in the Upper Peninsula a thoroughly equipped department which can be used by the board at their examinations.

Prof. Prescott—I very heartily approve what has been said by the last two speakers, and it is quite true. I am often impressed with the truth that to be able to prepare a pharmaceutical preparation properly or put up a prescription properly is far more important than to memorize the detailed formula of pharmacopoeia. If on examination you would place an applicant at prescription stand to put up a prescription or to make a preparation, you would be willing that he should have a Pharmacopoeia, perhaps, to refer to. There would be no objection to it, probably safer if pharmacists in making preparations, until he became very familiar with them, depend upon a printed or written formula—not to trust altogether to memory—safety against absence of mind. And yet in examination before our board this matter of memory of the details is almost a necessity. I heartily approve of the practical examination.

Mr. Schumacher—As a member of the Board of Pharmacy, I must say that I am very much pleased at the result of this discussion. The board is very often criticised in regard to the method pursued in regard to the examination, and it is not a new question for us, but we have discussed it many times, especially the prescription matter. We have done the best we could in regard to written matter. We do ask the applicants—give them a prescription and ask them how to manipulate. I do not know how we could do better than that unless we were equipped with material. We have done our best with what could be done on paper. I don't know how you could do it better unless you were equipped with apparatus—with the utensils. The



question has, as I say, often come up with the board—of just what to do in regard to that—in regard to cramming themselves with these certain books and knowledge they could get out of them. If the Association here is ready to give any recommendation to the board, I do not think there would be any question of their adopting it. There is no reason why we should not be centralized. It is not the custom of the board to accommodate the State.

Prof. Stevens—I don't know as it would be any more agreeable for the board to be running around in different parts of the State. Still, it would not be much to accommodate the druggists in the Northern Peninsula at least once a year.

J. D. Muir, Grand Rapids—Does our present law state where these meetings shall be held?

Mr. Schumacher—No; there simply shall be four meetings held in the year. I have given the matter of prescriptions much consideration, and I think we could so arrange the examination, if we were equipped, that we would have no trouble and take no longer than it would otherwise to accommodate eight or ten at a time and go right along with the examination. Drugs and materials could be taken as long as we would not have to carry the operating tables. There would be no trouble about carrying the apparatus. It would have to be transferred but once a year.

Mr. Parker—The English government, I think, hold their examination in two or three different places. Their applicants are all trained in practical dispensing. They are given a list of questions which are prescriptions, and they are sent to a desk and allotted so much time to compound those prescriptions. It would be very easy to embody a few prescriptions in that examination, which would be a sufficient test of a man's ability to go behind a table and take up his work.

I will offer as a resolution that this Association recommend to the State Board of Pharmacy that it add to its curriculum an examination in practical dispensing.

Supported.

S. E. Parkhill, Owosso—Since you are discussing methods and requirements before registration, I should think it would be advisable to take into consideration the changed condition of the drug business. The law was instituted in 1885, fifteen years ago, but since that time there is a very marked change in the drug business in the State of Michigan. While there are some places in the State where the scientific attainments should still be held to the front in the qualifications of a clerk, there are many others, and I think a great many more in proportion, where the needs are somewhat more lenient than they were fifteen years ago. Now, it may be that every man here who is a druggist still has a large prescription business; it may be that you all require a clerk who is competent to put up any prescription that comes

into the store; but as a practical method, the prescription business has practically passed away from the druggists in the State of Michigan in small places. That is true in my town. We don't put up one prescription now where we used to put up ten. The average druggist does not make one preparation where he used to make five, six, seven or eight. There are few stores in the State that make emulsions and have preparations, etc. There are very few of the stores in the State that put up very many pills. We were lazy twenty-five or thirty years ago and some brilliant genius conceived the idea of making things for us, and we have allowed him to do it. Now, the people who make these preparations go directly to the doctor and the doctors dispense their own medicines, and the druggist has ceased to dispense these things. That is the matter, I think, should be taken into consideration for the requirement for assistants in drug stores.

Mr. Parker—What is the board's duty—tab a man? To pour four ounces of emulsion into a bottle, or does it say, this man is competent to run a drug store? We send him out to you, giving you every assurance that he is competent to put up your prescriptions.

Mr. Parkhill—You are practically facing a condition different from that of fifteen years ago. I can see it is desirable that every man should be thoroughly qualified in his business, whatever his business is. If you are taking into consideration the practical examination, I think it would be well to change conditions of affairs in the State.

Motion carried.

President—There was a motion made in the last session to bring up the revised pharmacy law once more and read it before the Association, but as our time is pretty well limited, it is a question whether it would be advisable to take it up in that way.

Mr. Schumacher—Unless there are some members here that want to hear that, I move that we consider it read at this morning's session.

Motion supported.

Mr. Webber—I would like to say that there is an amendment to that that would have to be considered. Aside from that, it would be all right to dispense with the balance of it.

Mr. Schumacher—I withdraw until that amendment shall be passed.

Mr. Webber—This covers the question of the amendment as offered by Mr. Stevens.

Amendment read.

Mr. Webber—I would like also to state that the Legislative Committee, the new committee, ought to be allowed some discretionary powers. There may be changes that will have to be made in order to get this bill through and it ought to be allowed this privilege.

The following is the proposed bill as amended:

A BILL

To amend sections three, five, six, nine, ten, eleven and eleven-a of act number one hundred thirty-four of the public acts of eighteen hundred eighty-five, entitled "An act to regulate the practice of pharmacy in the State of Michigan," as amended by act number one hundred ninety-six of the public acts of eighteen hundred eighty-seven.

The People of the State of Michigan enact:

Section 1. That sections three, five, six, nine, ten, eleven and eleven-a, of act number one hundred thirty-four of the public acts of eighteen hundred eighty-five, entitled "An act to regulate the practice of pharmacy in the State of Michigan," as amended by act number one hundred ninety-six of the public acts of eighteen hundred eighty-seven, be and the same are hereby amended so as to read as follows:

Sec. 3. The President, Secretary and Treasurer, and other members of the board shall receive the amount of their traveling and other expenses incurred in the performance of their official duties, and shall also receive the sum of three dollars for each day actually engaged in such official service.

The board shall appoint an Assistant Secretary, who shall be the Clerk of the board, but who shall not be a member of the board, and who shall be a full registered pharmacist, whose duties shall be prescribed by the board, and who shall receive a salary to be fixed by the board. The board may employ an attorney or agent to investigate alleged violations, and who shall receive such compensation as shall be fixed by the board. Said salaries, per diem and expenses shall be paid from the fees received under the provisions of this act. All moneys received in excess of said per diem allowance and other expenses above provided for shall be paid into the State Treasury at the end of each year, and so much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof if, in any year, the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the Board of State Auditors, and to the Michigan Pharmaceutical Association, of all moneys received and disbursed by it pursuant to this act.

Sec. 5. No person other than a licentiate in pharmacy shall be entitled to registration as a pharmacist, except as provided in section four. Licentiates in pharmacy shall be such persons, not less than eighteen years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he has served a proper apprenticeship in a retail pharmacy or college or pharmacy, or both; is of temperate habits, and pay to the board a fee of five dollars. The said board may grant certificates of registration without further examination to the licentiates of such other Boards of Pharmacy as it may deem proper upon a payment of a fee of five dollars, and every subsequent examination a fee of three dollars.

Sec. 6. The said board may grant, under such rules and regulations as it may deem proper, at a fee not exceeding three dollars, the certificate of registered assistants to such persons, not less than sixteen years of age, who shall pass a satisfactory examination touching their competency, before the Board of Pharmacy, but such certificate shall not entitle the holder to engage in business on his own account, or to take charge of or act as manager of a pharmacy or drug store.

Sec. 9. Any proprietor of a pharmacy who, not being a registered pharmacist, shall fail or neglect to place in charge of such pharmacy a registered pharmacist, or any proprietor of a pharmacy who shall, by himself or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines or poisons, in his store or place of business, except by or in the presence of and under the supervision of a registered pharmacist, who shall take charge of or act as manager of such pharmacy, drug store or general store where drugs are kept for sale, or who, not being a registered pharmacist or registered assistant, shall retail, compound or dispense drugs, medicines or poisons; any person exposing their certificate in a place of business where the said person has no charge or supervision of the place, thereby misleading the public, shall, after having been notified by the Board of Pharmacy to remove said certificate, failing to remove the same within ten days from the date notice was sent, be deemed guilty of misdemeanor as under section 9, Pharmacy Law. For any proprietor permitting the violation of this section by any other person selling, or having for sale or giving away in his place of business, anything but the specified articles in section 10, shall be alike liable as the offender; or any person violating any other provisions of this act to which no other penalty is herein attached, shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars, and costs of prosecution, and in default of payment thereof, shall be imprisoned in the county jail not less than ten days nor more than ninety days, or both such fine and imprisonment, in the discretion of the court.

Sec. 10. Nothing in this act shall apply to, or in any manner interfere with, the business of any practicing physician who does not keep open shop for retailing, dispensing or compounding of medicine and poisons to others than his own patients, or prevent him from supplying to his patients such articles as may seem to him proper. Nor with the selling by any retail dealer of patent or proprietary medicines or drug, or of drugs, medicines, chemicals, essential oils, extracts, tinctures and medicinal preparations which are put up in bottles, boxes or packages, bearing labels securely affixed, which labels shall bear the firm name of the registered pharmacist or wholesale druggist, and the name of the registered pharmacist, or a registered private mark, indicating the registered pharmacist under whose supervision the same is put up, the dose that may be administered to adult persons, and if a poison, the name or names of the most common antidotes; nor with the selling by any person of copperas, borax, blue vitriol, saltpeter, spices, sulphur, brimstone, quinine, quinine pills, licorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, spirits of camphor, glycerine, Glauber's salts, Epsom salts, camphor gums, cream of tartar, bi-carbonate of soda, Paris green, nor with the exclusively wholesale business of any

dealer: Provided, That all articles herein exempted and classified in the Poison Act No. .... section .... of the laws of ....., as poisons, must be properly labeled with prescribed poison label, bearing caution mark and giving antidotes, labels bearing the name of firm making sale: And provided further, That the above mentioned registered private mark to be used for the personal signature of a registered pharmacist must be submitted to the Secretary of the Board of Pharmacy, together with name of registered pharmacist, to whom it applies by the firm making the application, and if found in good standing, shall be recorded for sole use of applicant, and if at any time there is a change made in the registered pharmacist conducting the pharmaceutical department of applicant, the change shall be brought to the notice of the Secretary of the Board of Pharmacy, whose duty it shall be to cancel the record pertaining to the case specified, and register the private mark, together with new name of a registered pharmacist, presented by applicant, if said registered pharmacist is found in good standing. Any person or firm violating the provisions of this section shall be deemed guilty of a misdemeanor, and for every conviction of such offense shall be subject to same penalties as attached to violations under section nine of this act.

Sec. 11. The sale of liquors for chemical, scientific, medicinal, mechanical or sacramental purposes, by druggists and pharmacists who do not operate under a saloon license, shall be subject to the pharmacy law, and all such liquors sold by druggists or pharmacists shall be for the purpose of this act, considered as drugs, medicines and for use in arts only, and the sale of the same shall be subject to the same regulations and requirements as are herein contained relative to the dispensing of drugs, medicines and poisons, and the compounding of prescriptions, and no druggist or pharmacist not operating under saloon license shall be permitted to make any display with liquors for attracting attention and creating demand for this line of goods. And for every conviction of such an offense shall be subject to the same penalties as attached to violations under section nine of this act. It shall be the duty of the Michigan Board of Pharmacy, upon receiving bona fide information of any violation of the provisions of this act relative to the sale of liquors by any pharmacist, druggist, or other person, to bring the offense, together with the information of any violation, to the notice of the prosecuting attorney under whose jurisdiction the violation is committed, whose duty it shall be to cause an investigation of such alleged violation, and if sufficient evidence be obtained, to cause the prosecution under the general liquor law of such pharmacist, druggist or other person operating under the pharmacy law. Upon conviction thereof the party so found guilty shall be subject to the penalties contained in the general liquor law, and in addition thereto, if the person convicted shall be a registered pharmacist or a registered assistant pharmacist, he may have his certificate of registration revoked by the Board of Pharmacy.

Sec. 11a. All expenses incurred by the Board of Pharmacy in investigating and prosecuting such violations of this act, relative to registration and the sale of liquor, shall be paid from the pharmacy fund, upon which the Secretary of the Board of Pharmacy may draw as needed for this purpose.

President—What is the pleasure of the Association with this report?

Secretary—I move the report be accepted. My motion is intended to cover report of the Legislative Committee on the amendment to the pharmacy law, and I move that we accept the full report of the committee.

Motion carried.

Secretary—I move that the Legislative Committee be given power to use these proposed amendments to the pharmacy law at their own discretion at the next session of the legislature.

Motion supported.

Mr. Parker—It seems to me that such discretionary power is very essential to this Legislative Committee, aside from the question of the desirability of these several divisions. There is the question of expediency, as they find in consulting with members from the legislature. I think we can trust the Legislative Committee. We know their mind and they know ours, and they are in accord with the purposes of this Association. What may be expedient for them to introduce or leave out in time, we cannot now foresee. Legal questions may arise; special objections of members of the legislature may arise. I am in favor of this resolution.

Motion carried.

President—We will now have report of the Nominating Committee.

Mr. Perry made the following report:

Gentlemen:—Your committee on nominations beg leave to submit the following report: For president, Charles F. Mann, Detroit; vice-presidents, W. D. Church, Grand Rapids, N. D. Morrish, Sault Ste. Marie, R. T. Bower, Petoskey; secretary, James W. Seeley, Detroit; treasurer, W. K. Schmidt, Grand Rapids; executive committee, E. E. Calkins, Ann Arbor, W. H. Burke, Detroit, C. B. Shuman, Manistee, J. S. Bennett, Lansing, D. A. Hagans, Monroe; trade interests committee, for 3 years, E. F. Phillips, Armada, H. Helm, Saginaw; delegates to National Association Retail Druggists, A. H. Webber, Cadillac, H. J. Brown, Ann Arbor, E. F. Phillips, Armada.

President—You have heard the report of the Nominating Committee. What is the pleasure of the Association?

Mr. Seeley—I sincerely hope the committee will withdraw my name as secretary of the Association. I do not know that I can do the work of the office.

President—The committee have presented their report, and it is for the Association to take action on same.

Mr. Thompson—I move that the report of the committee be accepted, and that the President be instructed to cast the ballot of the Association electing the officers reported by the committee.

Motion carried unanimously.

Mr. Webber—I would suggest that the new President give us a speech.

C. F. Mann, Detroit—I would like to say, gentlemen, that this matter is about as complete a surprise to me as anything could be. I labored very hard with the Nominating Committee to get them to release me from my present position, and I had not in mind that they were going to give me another. I would much rather have been left on the outside this year. I have given the Association matters so much attention for the past three years that I felt I needed a rest on that line. However, I cannot very well turn down this flattering honor. I appreciate very much the nice things and good things the Association has done for me, and I will endeavor to do the best I can in the future, as I have in the past, for the general welfare of the Association.

President—Next on the record is selecting a place of next meeting. Any proposition for such a place?

Mr. Prall—Mr. President, I move that we accept the cordial invitation of Detroit and that we meet there next year.

Motion carried.

Secretary—Now that we are to meet in Detroit, it will be necessary for the Association to elect a local secretary for the meeting, and I would nominate for that position Mr. W. H. Burke, of Detroit.

Carried.

Mr. Prall—It would be a great convenience if members could know now as well as later the date of the next meeting.

Secretary—I would like to suggest that that matter be taken up this afternoon. We will have a little time, I believe, for a short meeting. At the table will be a good time to talk it up. The reason I bring this up right here is that at every meeting we hear from lots of our members that a change in time of meeting might possibly result in a better crowd, perhaps putting the meeting in June or September, taking it away from the real hot summer months, and in the meantime I think we can have a chance to talk that over among ourselves and perhaps arrive at some definite conclusion as to whether we had better change our customary time of meeting or leave it where it is.

President—Do you wish to defer the time of the closing of the meeting?

Mr. Webber—In order to get this before the house, I move that the next annual meeting be held commencing the second Tuesday in August, running Tuesday, Wednesday and one session on Thursday morning, subject to alteration by the Secretary and President of this Association.

Motion carried.

Prof. Stevens—Mr. President, I move that we proceed to installation of officers.

Motion carried.

Mr. E. F. Phillips and Mr. H. J. Brown appointed as a committee to escort the President to the chair.

C. F. Mann, new President—Gentlemen, as I have already stated that I appreciate this honor very highly, it will not be necessary for me to go any further. What is your pleasure now, gentlemen?

Mr. Stevens appointed to conduct newly elected Secretary to chair.

J. W. Seeley, Detroit—Mr. President and Members of the Association. I don't know whether to say that I sincerely thank you for the honor conferred upon me or not, but I certainly feel honored by the election to this office, and I realize the fact that I am following in the footsteps of a man who has served you so faithfully and so well that it will be difficult for me to transact the business of this office as well as it has been in the past. I shall do the very best I can to conduct the business in my hands in the very best way, and as you may get communications from the Secretary's office, I bespeak for them your consideration and request you not to throw them in the waste basket. If we all put our hands to the plow, and every one of us does his part, there is no reason why we cannot double—treble—the membership of this Association. I believe the trouble in the past has been that we have left too much for the officers to do, and have said: "We have President, Secretary and Treasurer, and they will see to things," forgetting that part of the responsibility devolves upon you as much as it does upon your officers. Gentlemen, I thank you.

President—Is there anything farther to come before the meeting?

Mr. Parker—There is one face that we miss at this meeting, gentlemen, I do not know that I need to call his name—you all know him and you all remember him for his constant attendance upon the meetings of this Association—Mr. Reedy, of Corunna, one of the oldest members in point of years in this Association, and he is home sick. I move that the Secretary be instructed to express to Mr. Reedy the best wishes of this Association, and our sympathy and also our regret that he is unable to be present at this meeting.

Motion carried.



President—I would like to say, gentlemen, if there are any present who have not signed the register, I wish they would do so. Anything further that ought to come before us? If there are any matters that we have forgotten, now is the time to bring them up.

Mr. Burke—I move that the Association extend a vote of thanks to Mr. Muir, the local secretary, the local retail druggists of Grand Rapids, and to Messrs. Hazeltine, Perkins & Co. for the invitation they have given us and the kind entertainment throughout; also the retiring officers of the Association for the very efficient manner in which they have discharged the duties of their offices.

Motion carried.

President—I wish to call the attention of the members to your subscriptions on this list and ask that you make your contributions as soon as possible. Our State Association dues to the N. A. R. D. must come out of this money; at least that much must be turned in at once; and I would like to say to all of you that I wish you would bear in mind that you are all appointed a committee to work in this cause and secure what aid you can in this behalf, and the President and Secretary will take the matter of furthering this movement where we are not represented in this convention just as soon as we possibly can.

H. J. Brown, Ann Arbor—I move we adjourn sine die.

Motion carried.

## CONSTITUTION AND BY-LAWS.

Adopted at Petoskey, Michigan, July 13, 1887.

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### PREAMBLE.

Whereas, Organization, concert of action, and comparison of ideas are necessary to the advancement of any cause, and believing that a State Pharmaceutical Association will accomplish these objects; therefore,

Resolved, That we, druggists of the State of Michigan, whose names are hereunto attached, in compliance with an act entitled "An Act to Organize the Reputable Pharmacists of the State of Michigan into an Association to be known as the Michigan Pharmaceutical Association," approved April, 1887, do hereby organize ourselves into such Association, and adopt the following Constitution and By-Laws:

### ARTICLE I.

This Association shall be called the Michigan State Pharmaceutical Association.

### ARTICLE II.

The object of this Association shall be to unite the reputable pharmacists and druggists of this State, to improve the science and art of pharmacy, to elevate its standard, and ultimately to restrict the practice of pharmacy to properly qualified pharmacists, and to promote by all legitimate means the business interests of its members.

### ARTICLE III.

#### MEMBERSHIP.

Every pharmacist of good moral and professional standing, whether in business on his own account or employed by another, and teachers of pharmacy, materia medica, chemistry and botany, who may be specially interested in pharmacy, shall be eligible to membership.

### ARTICLE IV.

#### OFFICERS.

The officers of this Association shall be a President, three Vice-Presidents, a Secretary, an Assistant Secretary, to be selected from the place of next meeting, a Treasurer, and an Executive Committee of five members, all of whom shall be elected by ballot at the third sitting of the regular annual meetings of the Association, and to serve until their successors are elected.

There shall be elected a Committee on Trade Interests of seven members, who shall serve three years, or until their successors are elected. Three members shall be elected in 1896, two in 1897, two in 1898, and so in rotation.\*

\*As amended at the 1895 meeting.

## ARTICLE V.

### DUTIES OF OFFICERS.

Section 1. The President, or, in his absence or inability to serve, the Vice-Presidents in their order, shall preside at all meetings of the Association until the close of such meetings; call special meetings at the written request of twenty-five members; fill all vacancies that may occur in the offices of the Association between the annual meetings; shall present at each meeting a report of the Association, and perform such other duties as pertain to the office.

Sec. 2. The Secretary shall keep a record of all the proceedings of the Association. He shall keep a roll of the names of the members, with their residence, date of admission, and any subsequent changes. He shall read all communications, conduct all correspondence of the Association, notify all members four weeks in advance of each annual meeting, at each annual meeting render a report of the duties performed by him since the last annual meeting, and in conjunction with the Executive Committee shall superintend such publication as the Association may direct. He shall notify members of their election; also notify members of committees of their appointment and election, and furnish each member of the committees with the names of their associates on said committees. He shall receive and collect all moneys for dues, and from all other sources, giving receipts for the various amounts, keep a correct account thereof, and pay the same to the Treasurer, taking his receipt therefor. He shall give a sufficient bond, subject to the approval of the committee. He shall file a copy of the proceedings of each annual meeting in the office of the State Board of Health and the Secretary of State, and shall keep at least three copies in his own office.

Sec. 3. The Treasurer shall have charge of all the funds of the Association, for which he shall be personally responsible, pay all orders of the Secretary when countersigned by the President, render a full report of his transactions at each annual meeting, and report the state of the treasury when called upon by the Executive Committee. He shall give a sufficient bond, subject to the approval of the Executive Committee.

Sec. 4. It shall be the duty of the Secretary and Treasurer to turn over to their successors, without unnecessary delay, all papers and property of the Association committed to their care.

Sec. 5. It shall be the duty of the Executive Committee to aid the local Secretary in making arrangements for the meetings of the Association, to investigate applications for membership, audit all bills against the Association, and to attend to all business not otherwise assigned.

Sec. 6. The Committee on Trade Interests shall investigate all complaints regarding trade matters made by members of this Association and take such action thereon as they may deem proper, rendering comprehensive reports at each annual meeting of the Association. The committee shall have authority to employ a Trade Secretary, fixing his compensation, if any, and the members of the committee shall be reimbursed for actual traveling and hotel expenses incurred in attending the meetings of the committee or in pursuing investigations authorized by the committee.\*

\*As amended at the 1896 meeting.

## ARTICLE VI.

### MEETINGS.

The annual meeting of this Association shall be at such time and place as the Association shall previously determine.

## ARTICLE VII.

### BY-LAWS.

This Association may establish for its future government and regulation such By-Laws, not in conflict with the Constitution, as may be deemed proper and desirable.

## ARTICLE VIII.

### AMENDMENTS.

Every proposition to alter or amend this Constitution shall be submitted in writing and received at an annual meeting, and may be voted for at the next annual meeting, when, upon receiving the votes of three-fourths of the members present, it shall become a part of this Constitution.

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# BY-LAWS.

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## ARTICLE I.

### QUORUM.

Twelve members shall constitute a quorum.

## ARTICLE II.

### MEMBERSHIP.

The names of persons applying for membership, with their age, residence, present occupation, and length of experience in pharmacy, shall be presented in writing, signed by two members in good standing,

to the Executive Committee, and if favorably acted upon by that committee, the candidate shall be considered elected. A vote of all the members of the Executive Committee shall be required for an election.

### ARTICLE III.

#### FEEES.

The initiation fee of this Association shall be one dollar, which fee shall accompany the application.

### ARTICLE IV.

#### DUES.

Every member shall pay to the Secretary, on or before the first day of January of each year, the sum of two dollars.\* It shall be the duty of the Secretary to draw on all members when two years in arrears, previously sending notice of his intention to draw at a certain date. Any person neglecting to pay dues for three successive years shall forfeit membership. Dues paid by new members before an annual meeting shall apply on the present year. Those becoming members and paying dues after an annual meeting shall receive credit for the following year.

\*As amended at the 1900 meeting.

### ARTICLE V.

#### CERTIFICATE OF MEMBERSHIP.

Each member of this Association may, if he desire, upon the payment of one dollar, receive a certificate of membership, which shall be issued by the Secretary, provided said member is not in arrears for dues.

### ARTICLE VI.

#### COMMITTEES.

Section 1. The President shall, before the close of each annual meeting, appoint the following committees (of which he shall be an ex-officio member), each to consist of three members: Committee on Pharmacy and Queries, Committee on Legislation, Committee on Adulterations.

Sec. 2. The Committee on Pharmacy and Queries shall report annually respecting scientific progress, discoveries and investigations during the year, and near the close of each annual meeting a proper number of questions of scientific or practical interest, and shall secure the acceptance of as many of such questions of investigation as may be practicable, to be reported upon at the next annual meeting.

Sec. 3. The Committee on Legislation shall keep a record of, and compile for reference, the enactments of the different States regulating the practice of pharmacy and the sale of medicines. They shall report at each annual meeting of the Association what legislation on the subject has occurred during the year, and submit such recommendations with regard to legislation in this State as shall appear to them proper.

ARTICLE VII.

SUSPENSIONS—AMENDMENTS.

Section 1. These By-Laws shall not be suspended without the consent of two-thirds of the members present.

Sec. 2. Any amendment to these By-Laws must be made in writing and read before the Association at one sitting, and laid over to a subsequent sitting, when, upon receiving the votes of two-thirds of the members present, it shall become a part of these By-Laws.

ARTICLE VIII.

DELEGATES.

Five delegates and five alternates shall be annually elected to attend the meeting of the American Pharmaceutical Association.

ARTICLE IX.

PROCEEDINGS.

The proceedings of the Association and the roll of officers, committees and members, shall be published annually under the supervision of an editor, who shall be elected annually, and who shall be paid from the funds of the Association, and a copy of the proceedings shall be sent to each member of the Association less than two years in arrears.

ARTICLE X.

EXPULSION OF MEMBERS.

Any member or officer accused of violating the Constitution or By-Laws, or other improper conduct, may be expelled or removed from office by a two-thirds vote of all the members at a regular meeting. In every case definite charges must be preferred in writing, to which shall be affixed the names of not less than three members of the Association, and the Secretary shall send the accused person a copy of the charges and notify him in writing at least two weeks in advance of the time when his case will come up for hearing, offering him an opportunity to be heard in his own defense.

ARTICLE XI.

EXHIBITS.

The Association invites manufacturers and others to exhibit at the annual meetings, crude drugs, chemicals, pharmaceutical preparations, and such objects as possess a general scientific or special pharmaceutical interest.

ARTICLE XII.

RULES OF ORDER—ORDER OF BUSINESS.

Section 1. The Rules of Order of this Association shall be those in common use in deliberative assemblies, and such special rules as may be adopted by the Association.

Sec. 2. The order of business shall be such as the Executive Committee shall prescribe.

## LIST OF MEMBERS.

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If you change your residence, if your name and address are incorrectly given in Membership Roll, or if you hear of the death of a fellow-member, please notify the Secretary at once.

|                                                              |      |
|--------------------------------------------------------------|------|
| Adams, H. M., Port Huron.....                                | 1885 |
| Anderson, C. N., 511 Brush St., Detroit.....                 | 1888 |
| Armstrong, Walter N., Concord, Mich.....                     | 1900 |
| Arner, Frederick Charles, Petoskey.....                      | 1899 |
| Atkinson, Henry M., Harbor Springs.....                      | 1894 |
| Bacon, Wm. R., Sault Ste. Marie.....                         | 1899 |
| Bailey, Dr. John R., Mackinac Island.....                    | 1890 |
| Bailey, M. G., Mackinac Island.....                          | 1888 |
| Baird, James J., Lansing.....                                | 1898 |
| Baker, H. G., Michigan Drug Co., Detroit.....                | 1888 |
| Banister, John L., 201 S. Washington St., Saginaw, E. S..... | 1890 |
| Barie, H. L., 535 Macomb St., Detroit.....                   | 1887 |
| Barnard, Wm. Dwight, 420 Cedar St., Manistee.....            | 1891 |
| Barth, Wm., Grand Rapids.....                                | 1900 |
| Bassett, J. A., 201 N. Washington St., Ypsilanti.....        | 1885 |
| Bauer, A. C., Lansing.....                                   | 1897 |
| Beacham, C. B., Romeo.....                                   | 1884 |
| Bell, John, Lexington.....                                   | 1888 |
| Bellaire, Archie Joseph, Gladstone.....                      | 1890 |
| Benedict, Wm. L., Belding.....                               | 1900 |
| Bennett, John S., Lansing.....                               | 1897 |
| Bertram, J. P., 13 Main St., Westphalia.....                 | 1883 |
| Billing, George J., Detroit.....                             | 1900 |
| Bird, Harry Lamont, Benton Harbor.....                       | 1898 |
| Black, C. P., Lansing.....                                   | 1899 |
| Blair, Homer C., Albion.....                                 | 1900 |
| Borradalle, Frederick H., 202 South Walnut St., Lansing..... | 1892 |
| Bostick, Charles H., Manton.....                             | 1898 |
| Bower, Reuben T., Petoskey.....                              | 1900 |
| Bowman, H. D., Almont.....                                   | 1900 |
| Brooks, Alanson S., Michigan Drug Co., Detroit.....          | 1890 |
| Bross, C. M., Jerome.....                                    | 1889 |
| Brown, H. J., Ann Arbor.....                                 | 1883 |
| Bricker, Chester E., Port Huron.....                         | 1898 |
| Brundage, F., Muskegon.....                                  | 1886 |
| Bugbee, C. A., Traverse City.....                            | 1885 |
| Burch, Mrs. Florence, Adair.....                             | 1898 |
| Burdick, H. H., 611 E. Midland St., West Bay City.....       | 1884 |
| Burke, Wm. H., 153 Grand River Ave., Detroit.....            | 1899 |
| Burley, David H., Almont.....                                | 1890 |
| Burwell, R. G., 2339 Gratiot Ave., Port Huron.....           | 1884 |
| Cadlip, Samuel, Iron Mountain.....                           | 1896 |
| Calkins, E. E., Ann Arbor.....                               | 1888 |
| Chandler, C. A., Cambria.....                                | 1884 |

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|                                                              |      |
|--------------------------------------------------------------|------|
| Church, H. M., Holly.....                                    | 1883 |
| Church, Wm. D., Grand Rapids.....                            | 1889 |
| Clark, A. G., White Cloud.....                               | 1883 |
| Clark, H. C., Detroit.....                                   | 1900 |
| Clark, J. K., Blissneid.....                                 | 1884 |
| Coe, Thomas D., Romeo.....                                   | 1884 |
| Cohoe, Adolph, Capac.....                                    | 1890 |
| Colman, H. G., Kalamazoo.....                                | 1884 |
| Colwell, Dr. C. B., Jackson.....                             | 1886 |
| Conway, Ventry R., Sault Ste. Marie.....                     | 1890 |
| Cook, Charles E., 912 Van Buren St., Bay City.....           | 1884 |
| Coppernoll, George T., Port Huron.....                       | 1898 |
| Crawford, J. B., Ithaca.....                                 | 1885 |
| Cress, Edward A., Minden City.....                           | 1900 |
| Crispe, John, Plainwell.....                                 | 1886 |
| Crowley, J. J., 421 Michigan Ave., Detroit.....              | 1884 |
| Curran, E. S., St. Joseph.....                               | 1883 |
| Cutler, W. R., Ionia.....                                    | 1883 |
| Darling, G. S., Tawas City.....                              | 1888 |
| Davis, James E., Michigan Drug Co., Detroit.....             | 1884 |
| Dean, H. M., Niles.....                                      | 1887 |
| Dendel, W. H., Hopkins Station.....                          | 1892 |
| Dennis, G. C., Rochester.....                                | 1888 |
| DePuy, C. E., Stockbridge.....                               | 1888 |
| Dillon, James E., East Tawas.....                            | 1887 |
| Dorrance, A. A., Coldwater.....                              | 1883 |
| Doty, Wirt P., Detroit.....                                  | 1897 |
| Droelle, Frank W., Detroit.....                              | 1900 |
| Dunlap, Thomas, South Lyon.....                              | 1884 |
| Dupont, William, 182 Michigan Ave., Detroit.....             | 1883 |
| Eberbach, O., Ann Arbor.....                                 | 1883 |
| Fabry, Dr. John J., Benton Harbor.....                       | 1898 |
| Farrand, J. S., Jr., Farrand, Williams & Clark, Detroit..... | 1888 |
| Fenton, George L., KINGSLEY.....                             | 1885 |
| Ferris, J. E., Grand Rapids.....                             | 1900 |
| Foote, C. E., Foote & Jenks, Jackson.....                    | 1886 |
| Fordham, M., Elmira.....                                     | 1885 |
| Fordham, W. W., Elmira.....                                  | 1884 |
| Fournier, Lucien, Grayling.....                              | 1900 |
| Fritz, T. H., Cass City.....                                 | 1885 |
| Gates, Dr. T. O., East Tawas.....                            | 1884 |
| Gill, W. J., Beacon.....                                     | 1884 |
| Gleason, A., Wilder, Newaygo.....                            | 1900 |
| Goodrich, L. A., Hillsdale.....                              | 1884 |
| Goodwin, N. A., Eli Lilly & Co., Indianapolis, Ind.....      | 1896 |
| Grandy, Francis, Fairfield.....                              | 1885 |
| Grottenberger, J. O., Okemos.....                            | 1900 |
| Grunow, O. H., 238 Randolph St., Detroit.....                | 1884 |
| Gundrum, George, Ionia.....                                  | 1883 |
| Hackett, P. E., Wolverine.....                               | 1886 |
| Hagans, Daniel A., Monroe.....                               | 1890 |
| Haines, Edwin J., Duroy & Haines Co., Sandusky, O.....       | 1890 |
| Hale, H. G., Nashville.....                                  | 1883 |
| Hall, Perley W., Benton Harbor.....                          | 1898 |
| Hall, Wm. A., Detroit.....                                   | 1900 |
| Hallock, D. S., 18th and Fort Sts., Detroit.....             | 1897 |
| Hammond, Walter D., Au Sable.....                            | 1900 |



|                                                          |      |
|----------------------------------------------------------|------|
| Harwood, Henry, Ishpeming.....                           | 1885 |
| Hays, J. A., Ph. G., 147 S. 18th St., Pittsburg, Pa..... | 1895 |
| Heffernan, Thomas, Grand Rapids.....                     | 1895 |
| Heim, Henry, Saginaw, E. S.....                          | 1897 |
| Henderson, Frank L., Jackson.....                        | 1899 |
| Henning, Frederick J., Detroit.....                      | 1900 |
| Herman, Bruno A., St. Joseph.....                        | 1898 |
| Hessler, F. F., Rockford.....                            | 1895 |
| Hinchman, C. C., Michigan Drug Co., Detroit.....         | 1885 |
| Hinchman, J. M., Michigan Drug Co., Detroit.....         | 1888 |
| Hoffman, M. W., Jackson.....                             | 1899 |
| Hoden, Jesse F., Brown City.....                         | 1898 |
| Hopkins, F. S., Benton Harbor.....                       | 1888 |
| Hopper, Arthur G., Alpena.....                           | 1896 |
| Hueber, Charles F., Port Huron.....                      | 1898 |
| Hunt, Dewitt H., St. Johns.....                          | 1888 |
| Hurd, A. E., Davison.....                                | 1884 |
| Ingram, F. F., Detroit.....                              | 1891 |
| Jacks, G. T., Michigan Drug Co., Detroit.....            | 1890 |
| Jayne, John E., DeWitt.....                              | 1900 |
| Jenks, Charles C., Foote & Jenks, Jackson.....           | 1898 |
| Jones, H. Otis, New Buffalo.....                         | 1895 |
| Johnson, J. G., Traverse City.....                       | 1884 |
| Johnson, O. C., Ann Arbor.....                           | 1884 |
| Kane, John S., Onstead.....                              | 1899 |
| Kavanagh, E. A., 222 W. Washington St., Jackson.....     | 1898 |
| Kephart, H., Berrien Springs.....                        | 1883 |
| Kephart, Philip, Berrien Springs.....                    | 1899 |
| Kidder, Samuel, Jr., Almont.....                         | 1899 |
| Kimmich, Robert S., 202 Washington Ave., N. Lansing..... | 1897 |
| Kingsley, John, M. D., Manistee.....                     | 1889 |
| Kirchgeßner, Wm. Carl (Peck Bros), Grand Rapids.....     | 1900 |
| Kirkwood, P. B., Negaunee.....                           | 1885 |
| Knaak, Gustav H., St. Joseph.....                        | 1899 |
| Knill, H. C., Jr., Port Huron.....                       | 1888 |
| Knox, James W., 1177 Champlain St., Detroit.....         | 1898 |
| LaRue, C. M., 610 E. Midland St., West Bay City.....     | 1885 |
| Leland, N. P., Durand.....                               | 1886 |
| Lemen, J. Major, Shepherd.....                           | 1900 |
| Leyerer, George S., 1102 Columbus Ave., Bay City.....    | 1890 |
| Lipsinski, Julius, 156 Gratiot Ave., Detroit.....        | 1895 |
| Lohrstorfer, Joseph, Port Huron.....                     | 1898 |
| Longyear, Henry B., Mason.....                           | 1900 |
| Lowe, Vincent A., Benton Harbor.....                     | 1898 |
| Luce, W. O., Jr., Caro.....                              | 1885 |
| Lyon, L. W., 722 St. Aubin Ave., Detroit.....            | 1895 |
| Lyons, Dr. A. B., 72 Brainerd St., Detroit.....          | 1898 |
| McCabe, Alexander, Crystal.....                          | 1900 |
| McDonald, George, Kalamazoo.....                         | 1883 |
| McKenna, J. D., Shepherd.....                            | 1884 |
| McMullen, G. H., Ionia.....                              | 1883 |
| Manderville, W. W., 197 Randolph St., Chicago, Ill.....  | 1899 |
| Martin, E. C., Capac.....                                | 1897 |
| May, George R., Jackson.....                             | 1899 |
| Maxdalener, Max, Detroit.....                            | 1900 |
| Main, James L., Tekonsha, Calhoun Co.....                | 1895 |
| Mann, Charles F., 845 Third Ave., Detroit.....           | 1888 |

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|                                                                 |      |
|-----------------------------------------------------------------|------|
| Martin, A. F., Imlay City.....                                  | 1884 |
| Martin, Susie A., Holland.....                                  | 1885 |
| Mason, J. F., Warren.....                                       | 1888 |
| Matthews, George M., 6th and Broadway Sts., Grand Rapids.....   | 1891 |
| Maxson, M. M., Hudson.....                                      | 1885 |
| Meseroll, D. C., 154 Main St., Jackson.....                     | 1884 |
| Mesick, H. J., Plainwell.....                                   | 1886 |
| Miller, H. J., Vassar.....                                      | 1885 |
| Millsbaugh, Martin Benedict, 98 N. Union St., Grand Rapids..... | 1890 |
| Moeller, Joseph C., Detroit.....                                | 1900 |
| Morris, H. M., 919 Grand River Ave., Detroit.....               | 1888 |
| Morrish, N. D., Sault Ste. Marie.....                           | 1895 |
| Muir, J. D., Grand Rapids.....                                  | 1886 |
| Maurer, Carl L., Cadillac.....                                  | 1895 |
| Nasmyth, P. F., cor. Baker and 18th Sts., Detroit.....          | 1888 |
| Nelson, E. H., Nelson, Baker & Co., Detroit.....                | 1884 |
| Neumeister, Fred G., Muskegon.....                              | 1900 |
| Nugent, W. A., Bay Mills.....                                   | 1891 |
| Parker, A. S., 749 Woodward Ave., Detroit.....                  | 1883 |
| Parkhill, S. E., Owosso.....                                    | 1883 |
| Passage, J. H., Greenville.....                                 | 1886 |
| Pasternack, Charles L., 779 Hastings St., Detroit.....          | 1895 |
| Patenaude, A., Norway.....                                      | 1887 |
| Patterson, B. M., 238 Randolph St., Detroit.....                | 1885 |
| Pauly, L., 84 Canal St., Grand Rapids.....                      | 1898 |
| Peck, J. E., Grand Rapids.....                                  | 1885 |
| Packham, H. C., Freeport.....                                   | 1885 |
| Pegg, H. D., Morenci.....                                       | 1884 |
| Perham, J. T., Kent City.....                                   | 1888 |
| Perry, F. W. R., 709 Woodward Ave., Detroit.....                | 1883 |
| Pettitt, Charles E., Sand Beach.....                            | 1890 |
| Phillips, E. F., Armada.....                                    | 1883 |
| Phillips, F. S., Ogden.....                                     | 1884 |
| Pinkerton, Howard, 81 Grand River Ave., Detroit.....            | 1899 |
| Power, J. O., Addison.....                                      | 1884 |
| Prall, D. E., Saginaw.....                                      | 1883 |
| Pratt, G. O., 720 St. Antoine St., Detroit.....                 | 1884 |
| Prescott, A. B., Ann Arbor.....                                 | 1883 |
| Price, Fred. R., Sault Ste. Marie.....                          | 1899 |
| Purvis, G. S., 983 Jefferson Ave., Detroit.....                 | 1885 |
| Putnam, Arthur S., Manistique.....                              | 1898 |
| Ray, G. C., West Bay City.....                                  | 1885 |
| Reidy, Mike, Corunna.....                                       | 1884 |
| Remus, William J., 208 Clinton St., Grand Rapids.....           | 1892 |
| Reynolds, Linton, E., St. Joseph.....                           | 1890 |
| Richmond, Dr. T. W., Bear Lake.....                             | 1888 |
| Richter, Louis J., Saginaw, W. S.....                           | 1895 |
| Robbins, David L., Detroit.....                                 | 1900 |
| Rodenbaugh, H. W., Breedsville.....                             | 1887 |
| Rodenbaugh, I. N., Mancelona.....                               | 1886 |
| Rodgers, E. J., Port Huron.....                                 | 1884 |
| Rogers, A., Ravenna.....                                        | 1888 |
| Roys, Herman M., Farwell.....                                   | 1900 |
| Rudell, William A., Sault Ste. Marie.....                       | 1899 |
| Rudolph, A. E., Dowagiac.....                                   | 1886 |
| Runner, J. W., Shelby.....                                      | 1886 |

|                                                           |      |
|-----------------------------------------------------------|------|
| Russell, Dorian M., Detroit.....                          | 1892 |
| Russell, Ellsworth E., Jackson.....                       | 1890 |
| Sackett, S. M., Monroe.....                               | 1883 |
| Schlotterbeck, Julius O., Ann Arbor.....                  | 1890 |
| Schmidt, Walter Karl, 84 Canal St., Grand Rapids.....     | 1892 |
| Schrouder, Benj., 209 E. Bridge St., Grand Rapids.....    | 1892 |
| Schultz, I. S., St. Joseph.....                           | 1885 |
| Schumacner, A. C., Ann Arbor.....                         | 1887 |
| Schumaker, A. B., Grand Ledge.....                        | 1884 |
| Seeley, James W., 95-97 Woodward Ave., Detroit.....       | 1890 |
| Shaffer, John M., Gladwin.....                            | 1889 |
| Sharrard, Geo. N., Port Huron.....                        | 1898 |
| Sherrard, Charles C. (Ph. C.), 121 20th St., Detroit..... | 1892 |
| Sherwood, C. L., Dowagiac.....                            | 1884 |
| Shuman, C. Bruce, Manistee.....                           | 1900 |
| Siebert, G. F., Iron Mountain.....                        | 1883 |
| Sigler, F. A., Pinckney.....                              | 1885 |
| Smith, Charles M., Pontiac.....                           | 1898 |
| Smith, F. D., Coopersville.....                           | 1900 |
| Smith, Fletcher S., Saginaw, W. S.....                    | 1883 |
| Smith, John W., Benton Harbor.....                        | 1898 |
| Smith, Sydney S., Carrollton.....                         | 1898 |
| Sourwine, John J., Escanaba.....                          | 1897 |
| Spayde, W. H., Bloomington.....                           | 1886 |
| Sprague, W. G., Flushing.....                             | 1883 |
| Spring, Herman G., Unionville.....                        | 1898 |
| Spinning, J. Frank, 105 N. Washington Ave., Lansing.....  | 1897 |
| Stafford, E. O., Marquette.....                           | 1898 |
| Stafford, Joseph, Newberry.....                           | 1890 |
| Stearns, Frederick K., Detroit.....                       | 1891 |
| Stephens, Walter E., 1245 State St., Chicago, Ill.....    | 1898 |
| Stevens, A. B., Ann Arbor.....                            | 1883 |
| Stevens, F. D., Detroit.....                              | 1883 |
| Stone, C. G., 19 Archer Ave., Mt. Vernon, N. Y.....       | 1884 |
| Stover, H. E., Kalkaska.....                              | 1886 |
| Stringer, G. W., 808 Michigan Ave., Detroit.....          | 1884 |
| Summers, J. W. F., Gould City.....                        | 1892 |
| Swaby, G. A., 401 Center Ave., Bay City.....              | 1885 |
| Swift, George, 34 W. Congress St., Detroit.....           | 1883 |
| Taber, Roland B., Benton Harbor.....                      | 1898 |
| Taylor, Mrs. C. W., Loomis.....                           | 1885 |
| Taylor, H. S., 54 Selden Ave., Detroit.....               | 1889 |
| Taylor, P. Corey, Mt. Pleasant.....                       | 1900 |
| Thompson, Frank A., Detroit.....                          | 1889 |
| Todd, A. M., Kalamazoo.....                               | 1887 |
| Todd, Fred J., Detroit.....                               | 1886 |
| Travis, W. B., Belding.....                               | 1898 |
| Turner, Dr. R., Flat Rock.....                            | 1886 |
| Tuttle, W. A., 115 Woodward Ave., Detroit.....            | 1883 |
| Upson, Eugene S., Durand.....                             | 1896 |
| Vandecar, J. H., North Branch.....                        | 1883 |
| Van Marter, Ezra J., 155 W. Main St., Jackson.....        | 1884 |
| Van Vranken, G. D., Cadillac.....                         | 1886 |
| Varnum, E. C., Jonesville.....                            | 1884 |
| Varnum, G. C., Jonesville.....                            | 1884 |

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|                                                           |      |
|-----------------------------------------------------------|------|
| Von Walthausen, Werner, 1345 Johnson St., Bay City.....   | 1884 |
| Walker, A. L., 411 Woodward Ave., Detroit.....            | 1888 |
| Walsh, Heber, 63 E. Eighth St., Holland.....              | 1885 |
| Ward, G. J., St. Clair.....                               | 1884 |
| Warren, W. M., Parke, Davis & Co., Detroit.....           | 1898 |
| Way, Allen B., Sparta.....                                | 1900 |
| Webb, B. S., Alma.....                                    | 1886 |
| Webb, E. T., Jackson.....                                 | 1885 |
| Webber, A. H., Cadillac.....                              | 1884 |
| Weeks, Eugene J., Jackson.....                            | 1899 |
| Weeks, James E., Battle Creek.....                        | 1889 |
| Weinmann, Frederick, 202 N. Washington Ave., Lansing..... | 1897 |
| Weiss, J., Monroe.....                                    | 1888 |
| Wellman, Bert E., Armada.....                             | 1894 |
| Wells, Joseph J., Athens.....                             | 1899 |
| West, Ben. E., Grand Rapids.....                          | 1898 |
| Westervelt, F. E., Hotel Vendome, Grand Rapids.....       | 1896 |
| Wetzel, H. A., 902 Jefferson Ave., Detroit.....           | 1888 |
| Wicks, Frank E., 317 Meldrum Ave., Detroit.....           | 1898 |
| Wilber, C. H., St. Ignace.....                            | 1887 |
| Wilders, A. J., Ortonville.....                           | 1885 |
| Wilkinson, James E., Crystal Falls.....                   | 1899 |
| Williams, Frederick J., Lansing.....                      | 1898 |
| Williams, R. P., Farrand, Williams & Clark, Detroit.....  | 1888 |
| Williams, W. C., Michigan Drug Co., Detroit.....          | 1884 |
| Winegar, Willard S., Lowell.....                          | 1892 |
| Witherspoon, P. E., Benton Harbor.....                    | 1885 |
| Wolfinger, C. E., Hopkins Station.....                    | 1884 |
| Wood, Will H., Sheridan.....                              | 1887 |
| Wright, C. A., Tecumseh.....                              | 1884 |
| Yeomans, E. T., Ionia.....                                | 1883 |
| Zeller, Simeon, Sault Ste. Marie.....                     | 1899 |

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### HONORARY MEMBERS.

|                                                                         |         |      |
|-------------------------------------------------------------------------|---------|------|
| Duffield, S. P., Ph., M. D., Detroit.....                               | Elected | 1887 |
| Englehard, G. P., Chicago, Ill.....                                     | "       | 1883 |
| Stowell, Mrs. L. R., M. D., Washington, D. C.....                       | "       | 1887 |
| Vaughan, V. C., Ph. D., M. D., Ann Arbor.....                           | "       | 1887 |
| Wrampelmeyer, T. J., Ph. C., San Diego, Cal.....                        | "       | 1887 |
| Wells, Frank, Lansing.....                                              | "       | 1890 |
| Hoffman, Fr., Ph. D., Berlin, Charlotten Kant Str. 125,<br>Germany..... | "       | 1893 |
| Jesson, Jacob, Anaheim, Cal.....                                        | "       | 1894 |
| Vernor, James, Detroit.....                                             | "       | 1900 |

**DROPPED BY REQUEST AND FOR NON-PAYMENT OF DUES.**

|                                    |                               |
|------------------------------------|-------------------------------|
| Atkinson, F. E., Gladwin.          | Hessler, Wm., Detroit.        |
| Akey, J. V., So. Los Angeles, Cal. | Hunt, A. O., St. Johns.       |
| Bradshaw, J. P. H., Davison.       | Hyde, A. O., Marshall.        |
| Caldwell, J. W., Detroit.          | Kirchner, J. S., Detroit.     |
| Clark, A. B., Gobleville.          | Little, A. F., Aarwood.       |
| Cole, V. W., Petoskey.             | McGee, T. H., Farmington.     |
| Cornell, D. A., Copemish.          | McKevitt, H. D., Ishpeming.   |
| Cosford, J. W., Mancelona.         | McKibbin, R. S., Detroit.     |
| Culver, R. W., South Haven.        | Paton, David W., Almont.      |
| Cummer, R. T., Cleveland, O.       | Prosser, H. H., Flushing.     |
| Dayton, A. J., Grand Rapids.       | Riggs, M. E., Cheboygan.      |
| Fauckboner, O. A., Grand Rapids.   | Smith, S. R., Grand Rapids.   |
| Fay, O. J., Carleton.              | Speckhard, A. O., Watersmeet. |
| Gerow, J. E., Ovid.                | Stanton, H. N., Sidnaw.       |
| Hayes, N., Detroit.                | Vaughan, B. D., Albion.       |
| Hicks, W. H., Big Rapids.          | Walte, S. E., Traverse City.  |

**MICHIGAN STATE BOARD OF PHARMACY.**

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GEO. GUNDRUM, Ionia.....Term expires Dec. 31, 1900  
L. E. REYNOLDS, St. Joseph.....Term expires Dec. 31, 1901  
HENRY HEIM, Saginaw, E. S.....Term expires Dec. 31, 1902  
W. P. DOTY, Detroit.....Term expires Dec. 31, 1903  
A. C. SCHUMACHER, Ann Arbor.....Term expires Dec. 31, 1904

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**OFFICERS OF BOARD.**

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A. C. SCHUMACHER, Ann Arbor.....President  
HENRY HEIM, Saginaw, E. S.....Secretary  
W. P. DOTY, Detroit.....Treasurer

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**EXAMINATION SESSIONS OF BOARD.**

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Detroit, Jan. 8-9, 1901.  
Grand Rapids, Mar. 5-6, 1901.  
Star Island, June 17-18, 1901.  
Marquette, Aug. 28-29, 1901.  
Lansing, Nov. 5-6, 1901.

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Address all communications to the Secretary,

HENRY HEIM, Saginaw, E. S., Mich.

THE PHARMACY LAW.

AN ACT

To Regulate the Practice of Pharmacy in the State of Michigan. Act No. 134, Laws of 1885:

Section 1. The People of the State of Michigan enact, That the Governor, with the advice and consent of the Senate, shall, within thirty days after the passage of this act, appoint five persons, and annually thereafter one person from among such competent pharmacists in the State as have had ten years' practical experience in dispensing physicians' prescriptions, who shall constitute the Michigan Board of Pharmacy. The term of office of said five persons shall be so arranged that the term of one shall expire on the thirty-first day of December of each year, and all appointments made thereafter shall be for the term of five years.

Sec. 2. The said board shall, within thirty days after its appointment, meet and organize, by election of a President and Secretary from its own members, who shall be elected for the term of one year, and shall perform the duties prescribed by the board. It shall be the duty of the board to examine all applications for registration submitted in proper form; to grant certificates of registration to such persons as may be entitled to the same under the provisions of this act; to investigate complaints and to cause the prosecution of all persons violating its provisions; to report annually to the Governor and to the Michigan Pharmaceutical Association upon the condition of pharmacy in the State, which said report shall also furnish a record of the proceedings of the said board for the year, and also names of all pharmacists duly registered under this act; the board shall hold meetings for the examination of applicants for registration, and the transaction of such other business as shall pertain to its duties at least once in four months, said meetings to be held on the first Tuesdays of March, July and November in each year; shall make By-Laws for the proper fulfillment of its duties under this act, and shall keep a book of registration in which shall be entered the names and places of business of all persons registered under this act, which book shall also specify such facts as said persons shall claim to justify their registration. The records of said board, or a copy of any part thereof, certified by the Secretary to be a true copy, attested by the seal of the board, shall be accepted as competent evidence in all courts of the State. Three members of said board shall constitute a quorum.

Sec. 3. The Secretary of the board and the Treasurer thereof, if such separate office be created, shall receive a salary which shall be fixed by the board; they shall also receive the amount of their traveling and other expenses incurred in the performance of their official duties. The other members shall receive the sum of three dollars for each day actually engaged in this service, and all legitimate and necessary expenses incurred in the performance of their official duties. Said salaries, per diem and expenses shall be paid from the fees received under the provisions of this act. All moneys received in excess of said per diem allowance, and all other expenses above provided for, shall be paid into the State treasury at the end of each year, and so

much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof, if in any year the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the Board of State Auditors and to the Michigan Pharmaceutical Association, of all moneys received and disbursed by it pursuant to this act.

Sec. 4. Every person who shall within three months after this act takes effect forward the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist on his own account in the State at the time this act takes effect, in the preparation of physicians' prescriptions, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the board of a fee of two dollars, be granted the certificate of a registered pharmacist. Provided, That in case of failure or neglect to register as herein provided, then such person shall, in order to be registered, comply with the requirements provided for registration as a licentiate in pharmacy hereinafter described.

Sec. 5. No person other than a licentiate in pharmacy shall be entitled to registration as a pharmacist, except as provided in Section Four. Licentiate in pharmacy shall be such persons, not less than eighteen years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the board a fee of three dollars: Provided, That in case of a failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within one year. The said board may grant certificates or registration without further examination to the licentiates of such other boards of pharmacy as it may deem proper upon a payment of a fee of two dollars.

Sec. 6. The said board may grant, under such rules and regulations as it may deem proper, at a fee not exceeding one dollar, the certificate of registered assistant to clerks or assistants in pharmacy not less than eighteen years of age who at the time this act takes effect shall be engaged in such service in this State, and have been employed or engaged two years or more in the practice of pharmacy; but such certificate shall not entitle the holder to engage in such business on his own account, or to take charge of, or act as manager of, a pharmacy or drug store.

Sec. 7. Each registered pharmacist, or registered assistant, who desires to continue the practice of his profession shall annually, after the expiration of the first year of his registration, during the time he shall continue in such practice, on such date as the board of pharmacy may determine, pay to the said board a registration fee to be fixed by the board, but which shall not exceed one dollar for a pharmacist, or fifty cents for an assistant, for which he shall receive a renewal of said registration. Every person receiving a certificate under this act shall keep the same conspicuously exposed in his place of business. Every registered pharmacist, or assistant, shall, within ten days after changing his place of business or employment, as designated by his certificate, notify the Secretary of the board of his new



place of business. If any pharmacist or registered assistant shall fail or neglect to procure his annual registration, or to comply with the other provisions of this section, his right to act as such pharmacist or assistant shall cease at the expiration of ten days from the time notice of such failure to comply with the provisions of this section shall have been mailed to him by the Secretary of said board.

Sec. 8. All or any registration obtained through false representations shall be void, and the Board of Pharmacy may hear complaints and evidence and may revoke such certificates as it may deem improperly held.

Sec. 9. Any proprietor of a pharmacy who, not being a registered pharmacist, shall, ninety days after this act takes effect, fail or neglect to place in charge of such pharmacy a registered pharmacist; or any such proprietor who shall by himself, or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines, or poisons, in his store or place of business except by, or in the presence and under the supervision of a registered pharmacist, or except by a registered assistant; or any person not being a registered pharmacist who shall take charge of, or act as manager of, such pharmacy or store, or who, not being a registered pharmacist or registered assistant, shall retail, compound, or dispense drugs, medicines, or poisons; or any person violating any other provision of this act to which no other penalty is herein attached, shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than ten nor more than one hundred dollars, and in default of payment thereof shall be imprisoned not less than ten days nor more than ninety days, or both, such fine and imprisonment in the discretion of the court.

Sec. 10. Nothing in this act shall apply to, or in any manner interfere with, the business of any practicing physician who does not keep open shop for retailing, dispensing, or compounding of medicines and poisons, or prevent him from supplying to his patient such articles as may seem to him proper; nor to the vending of patent or proprietary medicines by any retail dealer who has been in such business three years or more; nor to the selling by any person of drugs, medicines, chemicals, essential oils, and tinctures which are put up in bottles, boxes or packages, bearing labels securely affixed, which labels shall bear the name of the pharmacist or druggist putting up the same, the dose that may be administered to persons three months, six months, one year, three years, five years, ten years, fifteen years, and twenty-one years of age, and, if a poison, the name or names of the most common antidotes; of copperas, borax, blue vitriol, saltpetre, pepper, sulphur, brimstone, paris green, licorice, sage, senna leaves, castor oil, sweet oil, spirits of turpentine, glycerine, Glauber Salts, epsom salts, cream tartar, bi-carbonate of soda, sugar of lead, and such acids as are used in coloring and tanning; nor to the selling of paregoric, essence of peppermint, essence of ginger, essence of cinnamon, hive syrup, syrup of ipecac, tincture of arnica, syrup of tolu, syrup of squills, spirits of camphor, number six, sweet spirits of nitre, laudanum, quinine and all other preparations of cinchona bark, tincture of aconite, and tincture of iron, compound cathartic pills, or quinine pills, nor to the exclusively wholesale business of any dealer: Provided, That every person who shall within three months after this

|                                                                 |      |
|-----------------------------------------------------------------|------|
| Martin, A. F., Imlay City.....                                  | 1894 |
| Martin, Susie A., Holland.....                                  | 1885 |
| Mason, J. F., Warren.....                                       | 1888 |
| Matthews, George M., 6th and Broadway Sts., Grand Rapids.....   | 1891 |
| Maxson, M. M., Hudson.....                                      | 1885 |
| Meseroll, D. C., 154 Main St., Jackson.....                     | 1884 |
| Mesick, H. J., Plainwell.....                                   | 1886 |
| Miller, H. J., Vassar.....                                      | 1885 |
| Millsbaugh, Martin Benedict, 98 N. Union St., Grand Rapids..... | 1890 |
| Moeller, Joseph C., Detroit.....                                | 1900 |
| Morris, H. M., 919 Grand River Ave., Detroit.....               | 1888 |
| Morrish, N. D., Sault Ste. Marie.....                           | 1895 |
| Muir, J. D., Grand Rapids.....                                  | 1880 |
| Maurer, Carl L., Cadillac.....                                  | 1895 |
| Nasmyth, P. F., cor. Baker and 18th Sts., Detroit.....          | 1888 |
| Nelson, E. H., Nelson, Baker & Co., Detroit.....                | 1884 |
| Neumelster, Fred G., Muskegon.....                              | 1900 |
| Nugent, W. A., Bay Mills.....                                   | 1891 |
| Parker, A. S., 749 Woodward Ave., Detroit.....                  | 1883 |
| Parkhill, S. E., Owosso.....                                    | 1883 |
| Passage, J. H., Greenville.....                                 | 1886 |
| Pasternacki, Charles L., 779 Hastings St., Detroit.....         | 1895 |
| Patenaude, A., Norway.....                                      | 1887 |
| Patterson, B. M., 238 Randolph St., Detroit.....                | 1885 |
| Pauly, L., 84 Canal St., Grand Rapids.....                      | 1898 |
| Peck, J. E., Grand Rapids.....                                  | 1885 |
| Packham, H. C., Freepport.....                                  | 1885 |
| Pegg, H. D., Morenci.....                                       | 1884 |
| Perham, J. T., Kent City.....                                   | 1888 |
| Perry, F. W. R., 709 Woodward Ave., Detroit.....                | 1883 |
| Pettitt, Charles E., Sand Beach.....                            | 1890 |
| Phillips, E. F., Armada.....                                    | 1883 |
| Phillips, F. S., Ogden.....                                     | 1884 |
| Pinkerton, Howard, 81 Grand River Ave., Detroit.....            | 1890 |
| Power, J. O., Addison.....                                      | 1884 |
| Prall, D. E., Saginaw.....                                      | 1883 |
| Pratt, G. O., 720 St. Antoine St., Detroit.....                 | 1884 |
| Prescott, A. B., Ann Arbor.....                                 | 1883 |
| Price, Fred. R., Sault Ste. Marie.....                          | 1890 |
| Purvis, G. S., 983 Jefferson Ave., Detroit.....                 | 1885 |
| Putnam, Arthur S., Manistique.....                              | 1898 |
| Ray, G. C., West Bay City.....                                  | 1885 |
| Reidy, Mike, Corunna.....                                       | 1884 |
| Remus, William J., 208 Clinton St., Grand Rapids.....           | 1892 |
| Reynolds, Linton, E., St. Joseph.....                           | 1890 |
| Richmond, Dr. T. W., Bear Lake.....                             | 1888 |
| Richter, Louis J., Saginaw, W. S.....                           | 1895 |
| Robbins, David L., Detroit.....                                 | 1900 |
| Rodenbaugh, H. W., Breedsville.....                             | 1887 |
| Rodenbaugh, I. N., Mancelona.....                               | 1886 |
| Rodgers, E. J., Port Huron.....                                 | 1884 |
| Rogers, A., Ravenna.....                                        | 1888 |
| Roys, Herman M., Farwell.....                                   | 1900 |
| Rudell, William A., Sault Ste. Marie.....                       | 1899 |
| Rudolphi, A. E., Dowagiac.....                                  | 1886 |
| Runner, J. W., Shelby.....                                      | 1886 |

|                                                           |      |
|-----------------------------------------------------------|------|
| Russell, Dorian M., Detroit.....                          | 1892 |
| Russell, Ellsworth E., Jackson.....                       | 1890 |
| Sackett, S. M., Monroe.....                               | 1883 |
| Schlotterbeck, Julius O., Ann Arbor.....                  | 1890 |
| Schmidt, Walter Karl, 84 Canal St., Grand Rapids.....     | 1892 |
| Schrouder, Benj., 209 E. Bridge St., Grand Rapids.....    | 1892 |
| Schultz, I. S., St. Joseph.....                           | 1885 |
| Schumacner, A. C., Ann Arbor.....                         | 1887 |
| Schumaker, A. B., Grand Ledge.....                        | 1884 |
| Sceley, James W., 95-97 Woodward Ave., Detroit.....       | 1890 |
| Shaffer, John M., Gladwin.....                            | 1889 |
| Snarrard, Geo. S., Port Huron.....                        | 1898 |
| Sherrard, Charles C. (Ph. C.), 121 20th St., Detroit..... | 1892 |
| Sherwood, C. L., Dowagiac.....                            | 1884 |
| Shuman, C. Bruce, Manistee.....                           | 1900 |
| Siebert, G. F., Iron Mountain.....                        | 1883 |
| Sigler, F. A., Pinckney.....                              | 1885 |
| Smith, Charles M., Pontiac.....                           | 1898 |
| Smith, F. D., Coopersville.....                           | 1900 |
| Smith, Fletcher S., Saginaw, W. S.....                    | 1883 |
| Smith, John W., Benton Harbor.....                        | 1898 |
| Smith, Sydney S., Carrollton.....                         | 1898 |
| Sourwine, John J., Escanaba.....                          | 1897 |
| Spayde, W. H., Bloomingdale.....                          | 1886 |
| Sprague, W. G., Flushing.....                             | 1883 |
| Spring, Herman G., Unionville.....                        | 1898 |
| Spinning, J. Frank, 105 N. Washington Ave., Lansing.....  | 1897 |
| Stafford, E. O., Marquette.....                           | 1898 |
| Stafford, Joseph, Newberry.....                           | 1890 |
| Stearns, Frederick K., Detroit.....                       | 1891 |
| Stephens, Walter E., 1245 State St., Chicago, Ill.....    | 1898 |
| Stevens, A. B., Ann Arbor.....                            | 1883 |
| Stevens, F. D., Detroit.....                              | 1883 |
| Stone, C. G., 19 Archer Ave., Mt. Vernon, N. Y.....       | 1884 |
| Stover, H. E., Kalkaska.....                              | 1886 |
| Stringer, G. W., 898 Michigan Ave., Detroit.....          | 1884 |
| Summers, J. W. F., Gould City.....                        | 1892 |
| Swaby, G. A., 401 Center Ave., Bay City.....              | 1885 |
| Swift, George, 34 W. Congress St., Detroit.....           | 1883 |
| Taber, Roland B., Benton Harbor.....                      | 1898 |
| Taylor, Mrs. C. W., Loomis.....                           | 1885 |
| Taylor, H. S., 54 Selden Ave., Detroit.....               | 1889 |
| Taylor, P. Corey, Mt. Pleasant.....                       | 1900 |
| Thompson, Frank A., Detroit.....                          | 1889 |
| Todd, A. M., Kalamazoo.....                               | 1887 |
| Todd, Fred. J., Detroit.....                              | 1886 |
| Travis, W. B., Belding.....                               | 1898 |
| Turner, Dr. R., Flat Rock.....                            | 1886 |
| Tuttle, W. A., 115 Woodward Ave., Detroit.....            | 1883 |
| Upson, Eugene S., Durand.....                             | 1896 |
| Vandecar, J. H., North Branch.....                        | 1883 |
| Van Marter, Ezra J., 155 W. Main St., Jackson.....        | 1884 |
| Van Vranken, G. D., Cadillac.....                         | 1886 |
| Varnum, E. C., Jonesville.....                            | 1884 |
| Varnum, G. C., Jonesville.....                            | 1884 |

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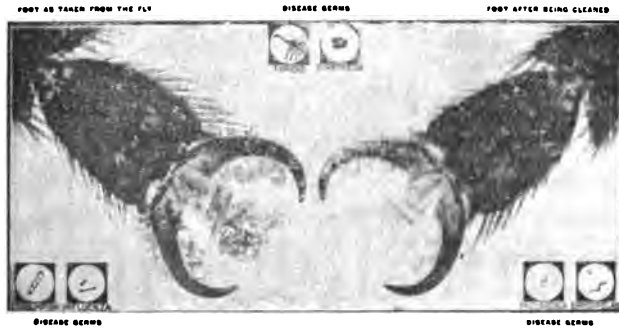
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